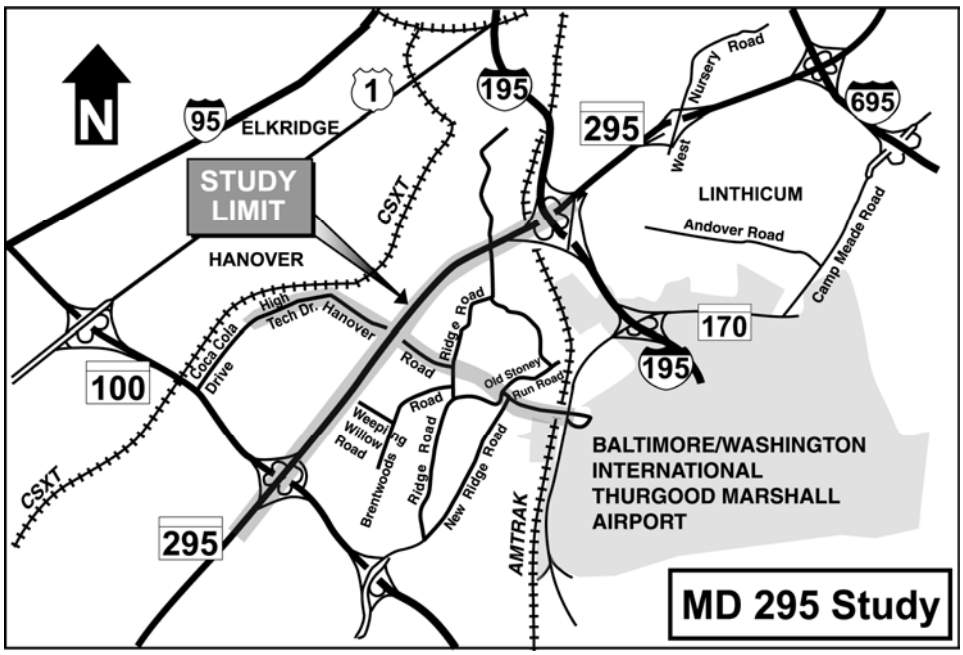
FINDING OF NO SIGNIFICANT IMPACT

SHA Project Number AA372B11

MD 295 Project Planning Study

From MD 100 to I-195 and Hanover Road from High Tech Drive to MD 170 (Aviation Boulevard)

Anne Arundel and Howard Counties



Prepared by:

U.S. Department of Transportation
Federal Highway Administration

Maryland Department of Transportation
State Highway Administration

April 2011

FEDERAL HIGHWAY ADMINISTRATION
DELMAR DIVISION

FINDING OF NO SIGNIFICANT IMPACT
MD 295 PROJECT PLANNING STUDY
FROM THE I-195 INTERCHANGE TO THE MD 100 INTERCHANGE
ANNE ARUNDEL AND HOWARD COUNTIES, MARYLAND

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

and

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

The Federal Highway Administration (FHWA) has determined that the Maryland State Highway Administration (SHA) Preferred Alternative, Alternate 7 – Southbound Alignment of Hanover Road with Loop and Half Diamond Interchange, will have no significant impact on the human, natural, or cultural environment. The SHA Preferred Alternate includes widening the existing MD 295 from four to six lanes, upgrading Hanover Road to a four-lane roadway, constructing a loop ramp in the southwestern quadrant of the proposed Hanover Road interchange and one-way directional ramps on the northeast and southeast quadrants in Anne Arundel and Howard Counties.

The SHA Preferred Alternate will require approximately 67.9 acres of right-of-way, including three residential displacements along Hanover Road. Within the limits of disturbance for the SHA Preferred Alternate, 11,543 linear feet of stream, 3.6 acres of wetlands, 8.4 acres of floodplain, and 33.2 acres of woodlands will be impacted. The SHA Preferred Alternate includes measures to mitigate impacts to streams, wetlands, forests, parkland, and historic resources.

In accordance with the CEQ Regulations and 23 CFR 774, the Maryland State Highway Administration (SHA) recommends that the Federal Highway Administration (FHWA) make a *de minimis* finding with respect to the minor impacts that the project will have on the Patapsco Valley State Park. The MD 295/HanoverRoad improvements would not adversely affect the activities, features, and attributes of the park, recreation area, or wildlife refuge. The public was afforded the opportunity for review and comment on this *de minimis* finding during the project's Public Hearing and subsequent comment period. It is SHA's intention to mitigate impacts to the park and utilize enhancement opportunities during the project design process. Through approval of this Finding of No Significant Impact (FONSI) FHWA concurs with this *de minimis* impact finding for Patapsco Valley State Park as a result of the preferred alternative for the MD 295/Hanover Road improvements.

This FONSI has been independently evaluated by the FHWA and SHA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. The FHWA and SHA take full responsibility for the accuracy, scope, and content of the FONSI/*de minimis* finding.

Neil J. Pedersen, Administrator
Maryland State Highway Administration

MARYLAND STATE HIGHWAY ADMINISTRATION
Gregory I. Slater, Director
Office of Planning and Preliminary Engineering

10/29/10
Date

FEDERAL HIGHWAY ADMINISTRATION
Nelson J. Castellanos, Division Administrator
DELMAR Division

11/22/2010
Date

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I. COMPARISON OF ALTERNATIVES

Table 1. Summary of Impacts

FEATURE	Alternative						
	1	**3**	**3A**	**4**	**4A**	**Preferred Alternative 7**	**8**
	No-Build	Compressed Diamond w/ Existing Hanover Road Alignment	Compressed Diamond w/ Relocated Hanover Road Alignment	SPUI w/ Existing Hanover Road Alignment	SPUI w/ Relocated Hanover Road Alignment	Loop Ramp w/ Relocated Hanover Road Alignment	Diverging Diamond w/ Relocated Hanover Road Alignment
Socio-Economic Environment							
1. Displacements (Number)							
a. Residential	0	4	3	4	3	3	3
b. Business/Commercial	0	0	0	0	0	0	0
Total Displacements	**0**	**4**	**3**	**4**	**3**	**3**	**3**
2. Properties/Resources Affected (Number)							
a. Residential	0	11	9	10	9	8	9
b. MAA-owned Parcels*	0	15	14	15	14	14	14
c. Other Business/Commercial	0	23	23	23	24	22	25
d. Religious Facility/School	0	0	0	0	0	0	0
e. Parkland/Recreation Areas	0	2	2	2	2	2	2
f. Historical/Archeological	0	0	0	0	0	0	0
Total Properties	**0**	**55**	**52**	**54**	**53**	**50**	**54**
3. Right-of-Way Required (Acre)							
a. Residential	0	13.2	13.8	12.8	13.8	11.9	13.6
b. MAA-owned Parcels	0	12.4	15.4	12.4	15.5	16.0	15.5
c. Other Business/Commercial	0	34.4	31.6	34.4	33.5	37.0	31.3
d. Religious Facility/School	0	0	0	0	0	0	0
e. Parkland/Recreation Area	0	3.0	2.9	3.2	2.9	3.0	3.0
Total Acres	**0**	**63.0**	**63.7**	**62.9**	**65.7**	**67.9**	**63.3**

*MAA- Maryland Aviation Administration

RESOURCES	Alternative						
	1	**3**	**3A**	**4**	**4A**	**Preferred Alternative 7**	**8**
	No-Build	Compressed Diamond w/ Existing Hanover Road Alignment	Compressed Diamond w/ Relocated Hanover Road Alignment	SPUI w/ Existing Hanover Road Alignment	SPUI w/ Relocated Hanover Road Alignment	Loop Ramp w/ Relocated Hanover Road Alignment	Diverging Diamond w/ Relocated Hanover Road Alignment
Natural Environment							
1. Prime Farmland Soils (Acre)	0.0	9.6	11.3	9.9	12.1	12.4	9.0
2. Wetlands (Acre)	0.0	3.7	4.1	3.7	4.1	3.6	4.3
3. Total Stream Impact (Linear feet)	0	14,969	14,234	15,432	14,419	11,543	13,299
Perennial	0	947	1,323	926	1,368	1,449	1,110
Intermittent	0	5,549	4,453	5,817	4,456	2,708	4,316
Ephemeral – Natural channel	0	2,262	2,160	2,278	2,182	1,744	2,192
[1]Ephemeral – Stormwater mgmt. channel	0	6,211	6,298	6,402	6,413	5,642	5,681
4. Impervious Surface (Acre)	0.0	27.6	29.6	28.8	30.7	29.4	29.0
5. 100-yr Floodplain (Acre)	0.00	6.2	6.6	6.4	7.0	8.4	7.0
6. Forest (Acre)	0.00	36.7	34.2	37.5	34.5	33.2	33.4
7. Rare, Threatened, and Endangered Species (Number of bog fern populations with potential indirect impacts)	0	5	5	5	5	5	5
Noise 1. Noise Sensitive Areas exceeding abatement criteria or increasing 10 dBA or more over ambient (Number)	0	5	5	5	5	4	4
Air Quality 1. CO violations of 1-hour or 8-hour standards (Number)	0	0	0	0	0	0	0
Total Cost (Million $)	$0	$166-$176	$178-$188	$171-$181	$185-$195	$185-$195	$187-$197

[1] Total stormwater management channel impacts include 373 linear feet of unclassified culverts that convey waterways that were not classified according to the Cowardin System.

II. PREFERRED ALTERNATIVE

A. Summary of Purpose and Need and Project Background

Maryland State Highway Administration (SHA) has evaluated alternatives/options for improving the MD 295 corridor from the I-195 interchange to the MD 100 interchange. The project also includes improvements to Hanover Road from MD 170 to Coca Cola Drive/High Tech Drive. The purpose of the MD 295 Project Planning Study is to improve the existing capacity, traffic operations, and safety along MD 295 and to enhance Hanover Road as a secondary access to the Baltimore/Washington International Thurgood Marshall Airport (BWI Thurgood Marshall) and surrounding areas. The Federal Highway Administration (FHWA) and SHA are the lead agencies for the project. Cooperating agencies include the Federal Aviation Administration (FAA) and the Maryland Aviation Administration (MAA).

Improvements in the study area are needed to address rapid growth and traffic volumes in one of the fastest growing areas of Anne Arundel County. BWI Thurgood Marshall, the BWI Business District, and large developments such as Arundel Mills Mall have all contributed to increased traffic volumes in the area. A traffic study performed to assess both short and long-term growth on the roadway network around BWI Thurgood Marshall revealed that many intersections in the area would fail based on travel demand forecasts for the year 2025. Due to the expansion of private and government facilities in the area, a heavier traffic demand would be placed on MD 295 as well as Hanover Road, which is a major cross road to MD 295. Improvements are also needed to correct substandard deficiencies on Hanover Road including flooding during heavy rains and the lack of sidewalks.

Seven alternatives along with the No-Build Alternative and two Hanover Road options were considered during the development of the MD 295 project. Of these, the No-Build Alternative, four build alternatives, and one Hanover Road option were retained for detailed study. Subsequent to the Alternates Public Workshop and Alternatives Retained for Detailed Study (ARDS) concurrence, three additional alternatives were developed, as well as direct access ramps from southbound MD 170 onto Stoney Run Road and from Stoney Run Road to southbound MD 170. Several design options were also considered on the west end of Hanover Road at High Tech Road.

B. Description of the Preferred Alternative

Alternative 7 was selected as the Preferred Alternative based on the information developed for the planning study and input from regulatory agencies and the public (**Appendix A**). Like all of the build alternatives, Alternative 7 includes widening the existing MD 295 mainline from four to six lanes along the inside of the roadway from south of the MD 100 interchange to north of the I-195 interchange. A 12-foot lane and a 10-foot shoulder would be added to the inside of the existing roadway, providing three 12-foot lanes, a 10-foot inside shoulder, and a 12-foot outside shoulder in each direction.

Hanover Road would be upgraded to a four-lane roadway (two lanes in each direction) with 20-foot median, 12-foot inside lanes, and 16-foot outside lanes to accommodate bicyclists. It would also include a 10-foot hiker/biker trail on the north side and a five-foot sidewalk on the south side between High Tech Drive in Howard County and Corporate Center Drive in Anne Arundel County. Hanover Road would be extended east beyond Corporate Center Drive / New Ridge Road as a four-lane undivided roadway with a 10-foot hiker/biker trail on the north side. The improvements to Hanover Road/Stoney Run Road also include direct access ramps from southbound MD 170 onto Stoney Run Road and from Stoney Run Road to southbound MD 170.

Under the Preferred Alternative, a loop ramp would be built in the southwestern quadrant of the proposed Hanover Road interchange to allow movement from southbound MD 295. One-way directional ramps would be built on the northeast and southeast quadrants to allow movements to and from northbound MD 295. No ramps would be built in the northwestern quadrant of the interchange to avoid impacts to parkland and wetlands, as well as the residential area in the quadrant. Alternative 7 relocates Hanover Road approximately 200 feet south of the existing alignment at the interchange location. **Appendix B** contains detailed mapping of the Preferred Alternative.

C. Environmental Impact Summary

Table 1 summarizes and compares impacts among the ARDS with those associated with the Preferred Alternative. The Preferred Alternative avoids impacting parks and wetlands in the northwest quadrant of the interchange. It would require the least number of residential and commercial properties affected as well as the least amount of impacts to woodlands, wetlands

and streams. Impacts to wetlands and streams in the remaining quadrants were minimized by adjusting slopes to 2:1 and reducing the median width on Hanover Road. The impacts of the Preferred Alternative (Alternative 7) are shown in Table 1.

1. Socio-economic Environment

The Preferred Alternative would generally improve the socio-economic environment in this area. With the widening of MD 295, traffic congestion along the roadway would lessen as a result of increased operational capacity and improved level of service (LOS). The construction of a new interchange at Hanover Road and the improvements to Hanover Road between MD 295 and Aviation Boulevard would enhance access and mobility to/from MD 295, BWI Thurgood Marshall, and the BWI Business District. Anne Arundel County and Howard County emergency services providers use Hanover Road and would like the roadway widened to two lanes in each direction as proposed with the Preferred Alternative. As a result of lane and access closures, motorists, residents, and businesses would experience adverse short-term effects during the construction phase of the project. However, these temporary impacts would be mitigated under a Maintenance-of-Traffic plan.

The Preferred Alternative would also enhance connectivity between the Baltimore and Washington Metropolitan Regions and improve access to BWI Thurgood Marshall which supports existing and planned development. The proposed improvements to Hanover Road include a hiker/biker lane and a sidewalk that would greatly enhance safety and improve accessibility from Hanover Road/Stoney Run Road to the BWI Trail, MARC BWI Station, MARC Penn Line, and businesses surrounding BWI Marshall. The hiker/biker trail would also provide a connection between the BWI Trail and the unimproved portion of the Patapsco Valley State Park (PVSP) at Deep Run and other recreational resources west of MD 295. The Preferred Alternative is completely within the Anne Arundel County BWI/Linthicum Small Area Plan and Howard County Master Plan Priority Funding Areas.

Right-of-way and Displacements

Approximately 67.9 acres of right-of-way would be needed for the Preferred Alternative, including three residential displacements along Hanover Road. No business displacements are anticipated. The displacements and right-of-way acquisitions would affect some property

owners, but would have no significant negative effect on community cohesion. Preferred Alternative 7 would not affect any known low-income or minority populations and would not require the displacement of any known persons with disabilities or elderly individuals. The Preferred Alternative would result in the reconfiguration of the driveway access and reduction of the lawn frontage of 1.1 and 0.4 acres from two residential parcels and 0.1 and 0.2 acre of two commercial parcels located on Hanover Road. Access to properties would be maintained during and after construction. Fair market value would be provided to all property owners as compensation for land acquisition, and property owners affected by displacements would receive relocation assistance in accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended by the Surface Transportation and Uniform Relocation Assistance Act of 1987. In the event that comparable replacement housing is not available for displaced persons or available replacement housing is beyond their means, replacement housing as a last resort would be provided.

Land Use

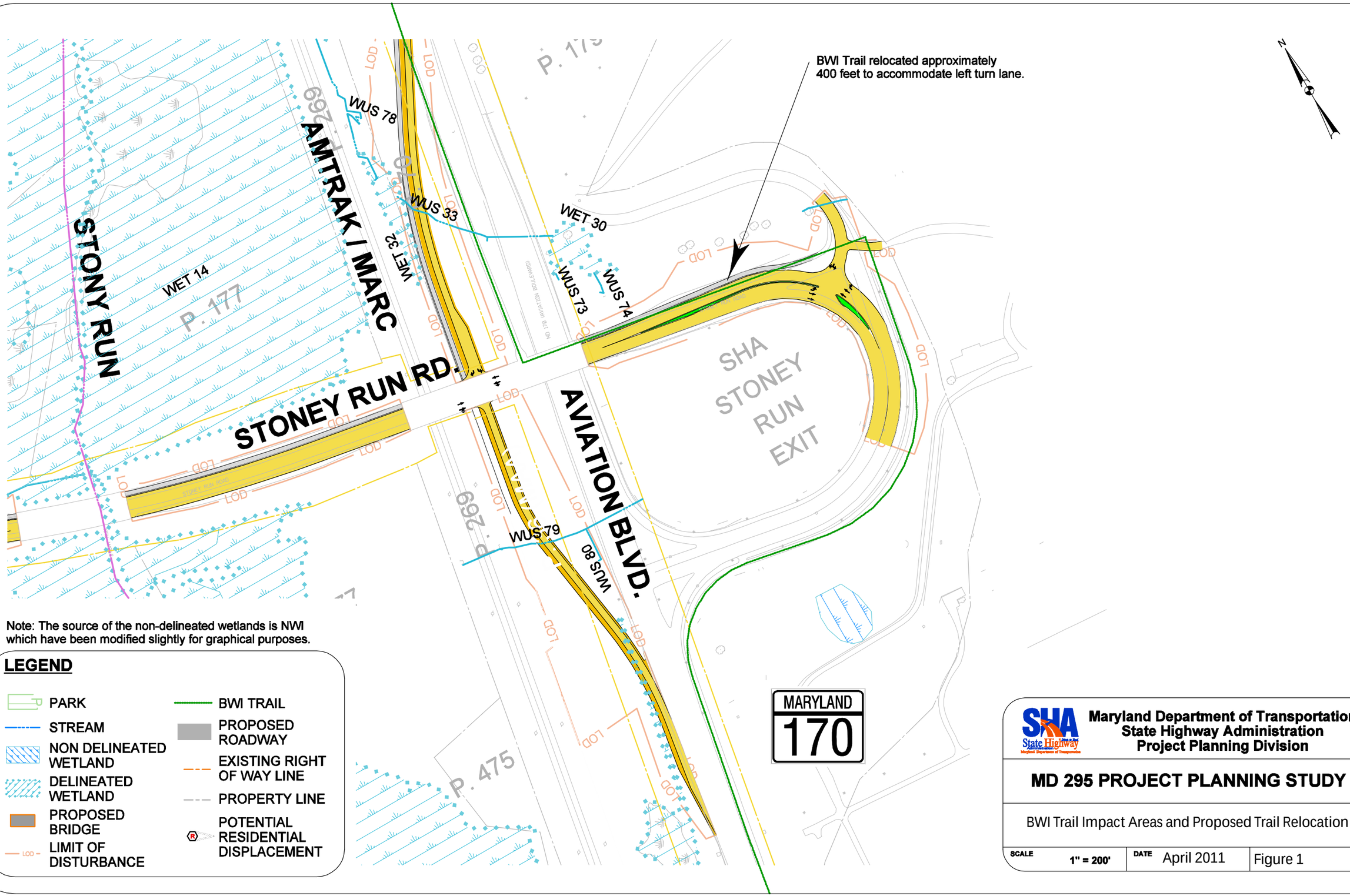
The predominant existing land uses within and surrounding the project area are commercial and industrial (40 percent), forest (40 percent), and low- and medium-density residential (11 percent). Most of the residential land is located in the western portion of the project area in Howard County, while commercial and industrial lands are primarily associated with BWI Thurgood Marshall to the east and along MD 100 and MD 176 to the south. Forested lands are prevalent along Deep Run and Stony Run, roughly parallel to MD 295. Located completely within the Anne Arundel County BWI/Linthicum Small Area Plan and Howard County Master Plan Priority Funding Areas, the Preferred Alternative is consistent with future land use as adopted in those plans.

Recreational Facilities

The Preferred Alternative would require the use of 3.0 acres of public recreation/park land (0.2 acre of the BWI Trail and 2.9 acres of PVSP). Both the BWI Trail and the state park are considered Section 4(f) resources under the U.S. Department of Transportation Act of 1966 (49 USC 303(c)). See Figures 1 and 2 which identify the two areas of impact.

A bike trail is proposed for Hanover Road and would tie in with the existing BWI Trail at the intersection of MD 170 and Stoney Run Road, requiring a 0.2 acre temporary easement of a county-owned portion of the BWI Trail. Impacts to the BWI Trail could not be completely avoided, and the Preferred Alternative would relocate the affected portion of the trail for a length of approximately 400 feet between the eastern end of the Stoney Run Road Bridge over MD 170 to the Northrop Grumman entrance (Figure 3). The trail would be re-constructed prior to any highway construction to avoid interruptions to the activities or purposes of the trail. On July 5, 2007, the Anne Arundel County Department of Recreation and Parks concurred with SHA that the Section 4(f) temporary use criteria were satisfied for the affected portion of the trail.

The Preferred Alternative would also require 2.9 acres of fee simple acquisition from the PVSP along Deep Run. SHA analyzed several avoidance options and minimization measures for PVSP, but none fully addressed the purpose and need of the project. The Maryland Department of Natural Resources (DNR) requested that park impacts be mitigated through a replacement parcel of equal quality and quantity to be determined by their agency. SHA has concurred with this mitigation, however, a specific replacement parcel has not been identified at this time. The public hearing for this project afforded an opportunity for public comment on this finding. A total of 4 individuals commented regarding park impacts. See Section IV Agency Correspondence and Coordination. Through consideration of avoidance, minimization and mitigation of the park impacts, the project qualifies for a Section 4(f) *de minimis* finding in accordance with 23CFR774. DNR concurred with this determination and a copy of this letter in **Appendix C**. Through approval of this Finding of No Significant Impact (FONSI) FHWA concurs with both the temporary use of the BWI Trail and the de minimis impact finding for Patapsco Valley State Park associated with the Preferred Alternative for the MD 295/Hanover Road improvements.



Note: The source of the non-delineated wetlands is NWI which have been modified slightly for graphical purposes.

LEGEND

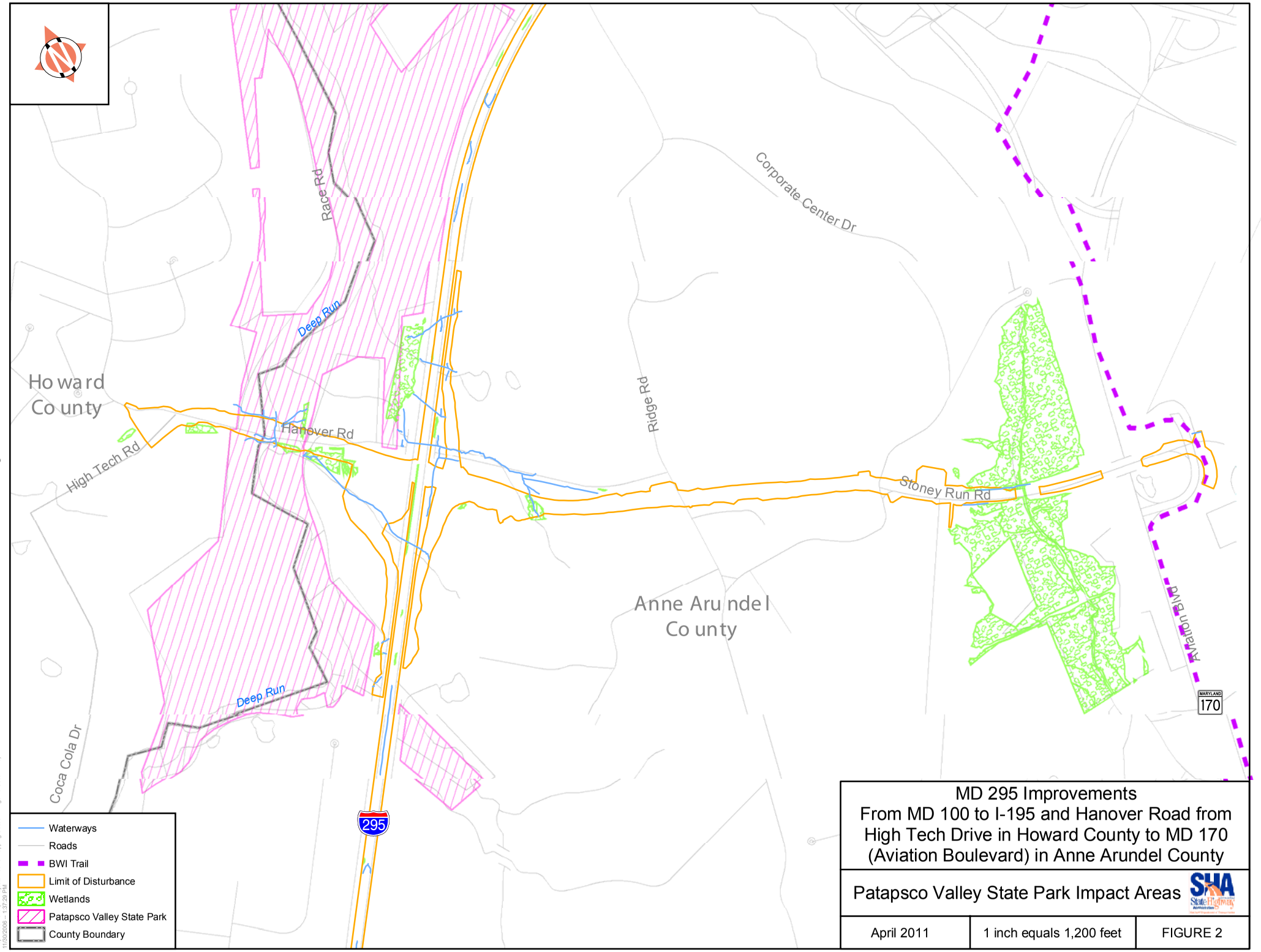
- PARK
- STREAM
- NON DELINEATED WETLAND
- DELINEATED WETLAND
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- BWI TRAIL
- PROPOSED ROADWAY
- EXISTING RIGHT OF WAY LINE
- PROPERTY LINE
- POTENTIAL RESIDENTIAL DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Planning Division

MD 295 PROJECT PLANNING STUDY

BWI Trail Impact Areas and Proposed Trail Relocation

SCALE	DATE	
1" = 200'	April 2011	Figure 1



MD 295 Improvements
From MD 100 to I-195 and Hanover Road from High Tech Drive in Howard County to MD 170 (Aviation Boulevard) in Anne Arundel County

Patapsco Valley State Park Impact Areas

April 2011	1 inch equals 1,200 feet	FIGURE 2

Scenic Byway and National Historic Trail

MD 295 is part of the Star Spangled Banner Scenic Byway and National Historic Trail. Scenic Byways are an important tool recognized by State and Local governments to build economic development through heritage tourism. SHA is utilizing the Context Sensitive Solution (CSS). Close coordination with SHA's Scenic Byways Program staff would occur in the design phase to ensure appropriate CSS Guidelines are incorporated. This project would improve vehicular safety and enhance the appearance of the road and surrounding vicinity maintaining the roadway's designation.

Maryland Aviation Administration Real Property Release

Preferred Alternative 7 would require the release of approximately 16 acres from 14 parcels owned by MAA. SHA and FHWA are coordinating the release of the MAA-owned property with MAA and the FAA as cooperating agencies for this study. SHA also coordinated with MAA and FAA on the design of the direct-access ramp from Stoney Run Road to southbound MD 170 that would fall within the MAA Runway-Protection Zone. As the ramp is currently designed, the Preferred Alternative would not interfere with Federal Aviation Regulation Part 77, which establishes standards and notification requirements for objects potentially affecting navigable airspace.

2. Cultural Resources

There are no historic standing structures eligible for the National Register of Historic Places (NRHP) within the project area. On March 18, 2008 the Maryland Historical Trust concurred that there would be no properties affected by the proposed project, with the condition thatthe NRHP-eligible Wilderness Site (18AN596), which is located in the existing MD 295 interchange area immediately adjacent to the project limits, must be avoided during the construction of this project (see Appendix C). In addition, SHA would reassess two additional sites located outside the Preferred Alternative limits of disturbance if they are determined necessary for mitigation and conduct a Phase I-II archeological survey as needed. One site is the location of a relocated stormwater management pond that could be used as a stream restoration site and the other is the proposed wetland mitigation site, described later in this document.

Coordination with MHT regarding these two sites would continue pending results of the Phase I investigations, and would be completed during the final design phase.

3. Natural Resources

Green Infrastructure

The GreenPrint Program (2001) was established by the Maryland General Assembly in an effort to "preserve the most ecologically valuable natural lands in Maryland" (Maryland's Green Infrastructure Assessment, 2003). These areas have been identified in DNR's Green Infrastructure data set, which was created using satellite imagery, road and stream locations and biological data. Identified areas include unfragmented natural areas, called "hubs", which include large blocks of contiguous interior forest and large wetland complexes, linear stretches of land, called "corridors", such as stream valleys and ridge tops that allow animals and seeds to move between "hubs" and areas of disconnect between the "hubs" and "corridors", or "gaps".

SHA, in coordination with County planners and the regulatory agencies, would continue to use green infrastructure data in the planning and design phases to locate areas of land that could be targeted for protection or restoration to help ensure habitat for Maryland's plants and wildlife, as well as to promote a healthier environment including improved outdoor recreation, clean drinking water, and erosion prevention. At the time Maryland's Green Infrastructure Assessment (2003) was published, it was determined that 74 percent of Maryland's Green Infrastructure is unprotected; and 13 percent of hubs, and less than one percent of corridors were in areas managed primarily for natural values.

Within the immediate vicinity of the Preferred Alternative, a significant amount of green infrastructure exists which can be attributed to the project's close proximity to PVSP. MD 295 is an existing urban freeway expressway; therefore, the impacts due to the proposed improvements are minimal. The potential stream restoration/ fish passage mitigation site 11 and the potential wetland mitigation site 1 are both located within a green infrastructure hub. Green infrastructure would be utilized in the design phase to identify gaps and areas of maximum ecological benefit for tree mitigation.

Soils

The project is located primarily in the Western Shore Uplands Region of the Coastal Plain, with the extreme western tip of the study area being in the Piedmont Province. The Howard County and Anne Arundel County soil surveys show a total of 19 soil series within the project study area. Of these series, eight are prime farmlands or farmlands of statewide importance. The Preferred Alternative would impact 12.4 acres of prime farmland soils which is slightly higher impacts than the other alternatives and 29.6 acres of farmland soils of statewide importance which is slightly lower than the impacts of the other alternatives. However, no active agricultural land would be impacted (Appendix D). Stormwater management and erosion and sediment control Best Management Practices (BMPs) would be incorporated into the roadway design to minimize the extent of soil disturbance and reduce soil loss.

Table 2. Direct Impacts (acres) to Hydric, Highly Erodible, and Farmland Soils

Classification	Alternative						
	No Build	3	3A	4	4A	7	8
Hydric Soils	0	4.1	4.1	4.1	4.1	4.1	4.1
Highly Erodible Lands	0	32.2	36.0	33.2	36.1	36.9	35.9
Prime Farmland Soils	0	9.5	11.2	9.8	12.0	12.4	9.0
Farmland Soils of Statewide Importance	0	31.3	29.7	31.5	30.1	29.6	30.1

Aquatic Resources

Preferred Alternative 7 would impact approximately 3.6 acres of wetlands. This total consists of 1.5 acres of palustrine emergent wetlands (PEM), 1.3 acres of palustrine forested wetlands (PFO) and 0.9 acre of palustrine scrub-shrub wetlands (PSS) which is inclusive of the 0.1 acre impacts to a non-tidal Wetland of Special State Concern. Widening MD 295 within the median, rather than to the outside, would reduce wetland impacts. Since all the alternatives include widening, the majority of impacts to PEM, PFO and PSS would be similar for all alternatives studied. The Preferred Alternative would require the least impacts to PEM and PFO and comparatively the same impacts to PSS.

Surface waters in the project area drain to one of three perennial streams; Deep Run, Stony Run, and Piny Run (a tributary of Deep Run). All of the waterways are designated as Use I Waters that are to be of sufficient quality for "water contact recreation" and "protection of nontidal warm water aquatic life," taking into account existing conditions and potential uses that may be made possible by anticipated improvements in water quality. Because the streams are designated as Use I streams, and yellow perch have been documented spawning in the area, no instream work will be performed during the period of February 15 through June 15, inclusive, during any year.

Preferred Alternative 7 would impact approximately 11,543 linear feet of streams within the study area. That total consists of 1,449 linear feet of perennial streams, 2,708 linear feet of intermittent streams, 1,744 linear feet of natural ephemeral channels, and 5,642 linear feet of ephemeral, man-made stormwater management channels. Several avoidance and minimization measures were included to reduce impacts to waterways, including the widening of MD 295 within the median rather than to the outside, designing perpendicular crossings to minimize stream realignment needs, steeper roadway embankments (utilizing 2:1 slopes in select areas) to reduce fill impacts, and reducing the proposed median of Hanover Road from 20 feet to 18 feet to reduce the area of disturbance. The preferred alternative would require the least amount of impacts to stream resources.

Wetland Finding

Pursuant to Executive Order 11990, efforts were made to avoid and minimize harm to wetlands in the project corridor. As previously discussed, there are no practicable alternatives that would completely avoid construction in wetlands and still satisfy the project's purpose and need. The preferred alternative incorporates efforts to reduce the amount of affected wetland areas and includes all practicable measures to minimize harm to wetlands which may result from such use. The U.S. Army Corps of Engineers has concurred with our preferred alternative and conceptual mitigation package.

Impervious Surface

The Preferred Alternative would also require the addition of 29.4 acres of impervious surface to this watershed. This is a comparable amount to the other build alternatives. The

additional highway lanes, interchange, and Hanover Road widening proposed in each of the alternatives would contribute small amounts of pollutants over time to streams already receiving chemical inputs from the existing roadways and built lands throughout the sub-watersheds. The addition of impervious surfaces to those associated with existing and planned developments in the project area may incrementally degrade stream water quality and ecological health due to chemical and sediment pollution. Pollutants such as heavy metals, organic salts, hydrocarbons, oil and grease, rubber particles, suspended solids, deicing salts typically accumulate on road surfaces and are mobilized and transported to surface waters during rain events. SHA adheres to the erosion and sediment control procedures and the *Maryland Stormwater Management Guidelines for State and Federal Projects* and would obtain the appropriate permit and approval from MDE for this project once in final design. SHA would provide water quality BMPs that would meet the *2000 Maryland Stormwater Design Manual* following the latest MDE guidelines.

Aquatic Resource Mitigation

Although impacts of the Preferred Alternative on wetlands and streams are the lowest among the ARDS, there are unavoidable environmental impacts that would require mitigation as outlined below.

Table 3. Summary of Wetland Impacts and Associated Mitigation

Wetland ID	Wetland Classification	Impact (Acres)	Required Mitigation (Acres)
WETs 2, 9, 15, 16, 17, 19, 20, 21, 22, 26, 27, 28, 29, 32, 34, 35, 36, 37, 40, 41, 42, 43	PEM	1.5	1.5
WETs 5, 18	PSS	0.8	1.6
WETs 3, 4, 6, 7, 10, 11, 12, 14, 38, 39	PFO	1.3	2.6
	Total	**3.6**	**5.7**

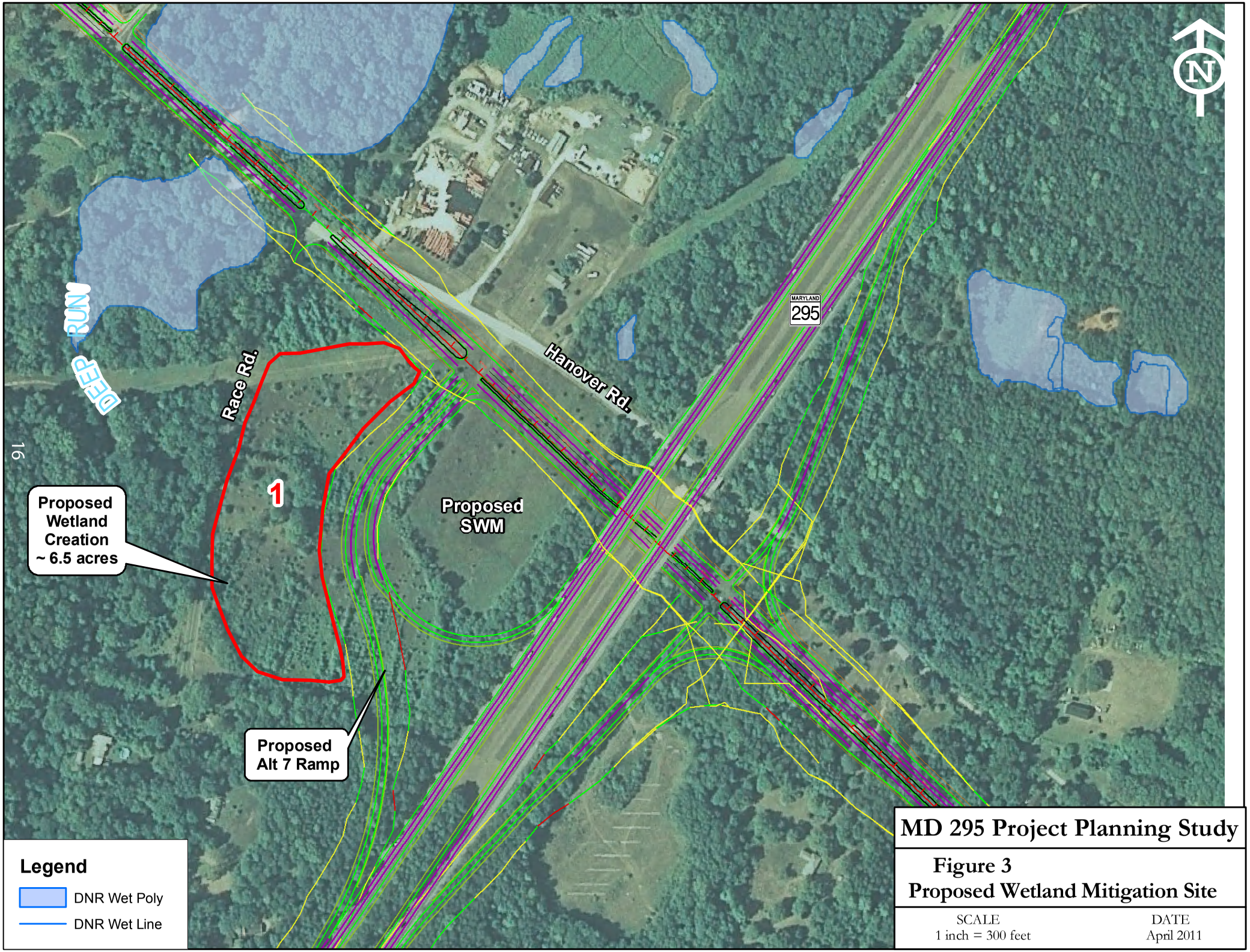
Table 4. Summary of Stream Impacts

Stream Classification	Impact (Linear Feet)	Mitigation
Ephemeral	7,386	no specific ratios exist for stream mitigation
Intermittent	2,708	
Perennial	1,449	
Total	**11,543**	

The goal of wetland and stream mitigation is to replace, preserve, and enhance functions within the same watershed that were lost due to project impacts. The primary functions of the proposed impacted wetlands include groundwater recharge/discharge, flood flow attenuation, fish and shellfish habitat, sediment/toxicant reduction, nutrient removal, sediment stabilization, and wildlife habitat.

Eleven potential wetland and stream creation, restoration, or enhancement sites were identified in the mitigation site search. SHA reviewed the mitigation site search report with the regulatory agencies and selected one wetland and one stream mitigation site based on agency feedback. See Figures 3 and 4 for maps depicting the location of the mitigation sites.

The wetland mitigation site is located between MD 295 and Hanover and Race Roads. SHA would acquire a twelve acre parcel to construct a stormwater management (SWM) facility and an off-ramp associated with the new interchange. The remaining portion of the parcel equal to approximately 6.5 acres would be used for creation of a partially forested, partially emergent wetland. The amount of wetland creation exceeding the 5.8 acres required for compensatory mitigation would become part of SHA's internal inventory for future mitigation use. SHA has coordinated with MHT regarding potential cultural resources impacts of creating the mitigation site. A Phase II investigation was completed, which indicated that this site was ineligible for NRHP listing, and the Maryland Historical Trust concurred on March 20, 2008. See Section IV Agency Correspondence and Coordination. Approximately a third of this site remains unsurveyed and has high archeological potential due to its proximity of Deep Run, which parallels its western border, and the presence of undisturbed agricultural and wooded lands. If this site is selected and its current configuration is maintained in the design phase, an additional Phase I archeological survey would be required.


DEEP RUN
Race Rd.
Hanover Rd.
MARYLAND
295
1
Proposed
Wetland
Creation
~ 6.5 acres
Proposed
SWM
Proposed
Alt 7 Ramp
16
Legend
DNR Wet Poly
DNR Wet Line
MD 295 Project Planning Study
Figure 3
Proposed Wetland Mitigation Site
SCALE
1 inch = 300 feet
DATE
April 2011

MD 295 Project Planning Study

Figure 4
Proposed Stream Mitigation Site

SCALE	DATE
1 inch = 300 feet	April 2011

The stream mitigation site is located on Stony Run at Furnace Avenue, approximately 1,200 feet upstream from the confluence of Stony Run with the Patapsco River. The site has been identified as an anadromous fish blockage. The proposed mitigation is to replace the existing corrugated metal pipe culvert with a box culvert at a shifted angle to better align with the stream, embed the culvert at a deeper elevation to restore fish passage, and enhance several hundred feet of stream channel immediately upstream and downstream of the culvert. The existing culvert has a one to two foot hydraulic drop on the downstream side of the pipes. Removal of the blockage would open up several miles of spawning habitat to anadromous blueback herring, alewife, hickory shad and American eels, as well as provide passage for resident fish species.

Floodplains

The proposed action would comply with Executive Order 11988; Floodplain Management, and 23 CFR 650, Subpart A. For transportation projects, the U.S. Department of Transportation (DOT) Order 5650.0 entitled Floodplain Management and Protection prescribes policies and procedures for ensuring that proper consideration is given to the avoidance and mitigation of floodplain impacts. Federal Emergency Management Agency flood mapping indicates that regulated 100-year floodplains would be impacted cross the project area in several locations; along Deep Run, Stony Run, and Piny Run, the three primary perennial waterways in the project area.

The Preferred Alternative would potentially impact 8.4 acres of floodplain, most of which would occur along Deep Run. Direct impacts may be associated with replacement or modification of existing bridges and culverts, and associated encroachment onto the floodplain. A preliminary hydrologic analysis was initiated for this project and will continue during the design phase to ensure that the propose action would not affect upstream storage capacity or down stream flow rates. Measures to reduce floodplain impacts would be considered during the design phase of the project.

Vegetation and Wildlife

The Preferred Alternative would impact approximately 33.2 acres of woodland. The woodland impacts would primarily occur within the existing MD 295 medians or immediately

adjacent to existing Hanover Road, and would not include forest interior or other undisturbed habitats. Twenty-one specimen trees could be directly impacted by Alternatives 7 and 8, and 22 specimen trees may be impacted by Alternatives 3, 3A, 4, and 4A. In design, further effort can be made in avoiding direct impacts to specimen trees by adjustment of the proposed alignment. Such adjustments would have to be fully evaluated to assure any potential impacts on other sensitive resources. Mitigation for the 33.2 acres of forest cover impacted by the Preferred Alternative would require replacement on an acre-for-acre, one-to-one basis within a year of project completion, in accordance with Maryland Reforestation Law. Reforestation sites would be identified in the design phase of the project and within the same county or watershed would be given the first priority. If local reforestation sites cannot be identified, SHA would deposit $4,356 per cleared acre into the Reforestation Fund. To further minimize impacts of the Preferred Alternative on woodlands, SHA would cut or clear only the minimum number of trees and other woody plants that are necessary and consistent with sound design practices, and shall make every reasonable effort to minimize the cutting or clearing of trees and other woody plants.

Rare, Threatened, and Endangered Species

No rare, threatened, or endangered animal species are known to occur within the project area. However, field surveys were conducted for six State including one Federal rare, threatened, or endangered plant species known to occur in the vicinity of the study area: *Helonias bullata* (swamp pink, federally threatened and state endangered), *Arundinaria gigantea* (giant cane, state rare), *Polanisia dodecandra* (clammyweed, state endangered), *Thelypteris simulata* (bog fern, state threatened), *Juglans cinerea* (butternut, state rare), and *Smilax pseudo-china* (halberd-leaved greenbrier, state threatened).

Swamp pink, giant cane, clammyweed, butternut, and halberd-leaved greenbrier were not observed within the proposed limits of disturbance during the surveys, although potential habitat for each species was documented within or immediately adjacent to the project limits. Five separate occurrences of bog fern were documented in close proximity to, but outside, the proposed limits of disturbance. The Preferred Alternative would not result in direct impacts to the plants; however, it could have indirect impacts on the bog fern as a result of potential hydrologic changes to the wetlands that support that species.

SHA has coordinated with DNR throughout the project planning process. Since approval of the Environmental Assessment (2007), SHA sent a letter to DNR in January of 2008 requesting information on the location of the five bog fern populations, construction-related measures that would minimize the potential for indirect impacts and impacts to the Wetland of Special State Concern near Stony Run Road west of the AMTRACK/MARC railroad tracks near MD 170. DNR did not directly respond to the letter; however they provided comments as part of their review of the Preferred Alternative/Conceptual Mitigation package.

4. Air Quality

A project-level air quality technical analysis was completed in accordance with the U.S. Environmental Protection Agency (EPA), FHWA, and SHA guidelines. Carbon monoxide (CO) predictions were analyzed as the accepted indicator for vehicle induced air pollution. Air quality analyses utilized the MOBILE 6.2 emissions factor model and CAL3QHC dispersion model to predict worst-case CO concentrations for the existing year (2004 data) and the design year (2030). The analysis indicated that both the one-hour and eight-hour concentration of CO would not exceed the National Ambient Air Quality Standards (NAAQS) of 35.0 parts per million (ppm) for the one-hour measurement and 9.0 ppm for the eight-hour measurement at any sites within the project area for any of the build alternatives, including Preferred Alternative 7.

An analysis of particulate matter 2.5 microns or smaller in size ($PM_{2.5}$) was conducted as part of an air quality technical analysis. The project is located in Howard and Anne Arundel counties, Maryland. Both counties are listed as not in "non-attainment" with the NAAQS for CO, nitrogen dioxide, sulfur dioxide, and lead. Howard and Anne Arundel counties are listed as "moderate non-attainment" relative to the NAAQS for eight-hour ozone and "non-attainment" relative to $PM_{2.5}$, and are therefore subject to conformity with the State Implementation Plan. Based on review and analysis of the proposed MD 295 Project Planning Study, the agencies determined that Alternative 7 meets the requirements of the Clean Air Act and 40 CFR 93.109. These requirements are met for particulate matter without a project-level hot-spot analysis since the project has not been found to be a project of air quality concern as defined under 40 CFR 93.123(b)(1).

FHWA *Guidance on Air Toxic Analysis in NEPA Documents* requires analysis of Mobile Source Air Toxics (MSAT) under specific conditions. Under the Preferred Alternative in design year 2030, reduced MSAT emissions in the immediate area of the project is expected relative to the No-Build Alternative, due to the EPA's MSAT reduction programs and reduced Vehicle Miles Traveled associated with more direct routing.

The project area falls under the jurisdiction of the Baltimore Regional Transportation Board (BRTB). The BRTB is the federally recognized Metropolitan Planning Organization for transportation planning in the Baltimore Region. Members of the Baltimore Metropolitan Council (BMC) Board serve on the BRTB, and the BMC provides technical and staff support to the BRTB. Anne Arundel and Howard counties are both considered to be in "non-attainment" for $PM_{2.5}$. The BRTB approved the 2007-2011 Transportation Improvement Program(TIP) and the 2004 Baltimore Regional Transportation Plan on August 22, 2006, and has concluded that the region's transportation plan and program are in conformity with the State Transportation Improvement Program (STIP) relative to air quality goals. Therefore, the MD 295 project has been included in a conforming plan and program in accordance with 40 CFR 93.115. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93.

5. Noise

A project-level traffic noise technical analysis was completed in accordance with FHWA and SHA guidelines, including *Procedures for Abatement of Highway Traffic*, *Noise and Construction Noise* (Title 23 CFR, Part 772) and the Maryland Department of Transportation (MDOT) – SHA *Sound Barrier Policy* (May 1998). Predicted noise levels were used to determine traffic noise impacts based on the SHA/FHWA criteria. Both the threshold noise impact level of 66 dBA and/or a substantial increase over existing noise levels (i.e. 10 dBA or more) were used as the assessment criteria of whether noise abatement should be investigated.

Five of the nine Noise Sensitive Areas (NSA) as well as portions of PVSP would experience build year noise levels equal to or exceeding impact criteria for the Preferred Alternative 7, and therefore warrant abatement consideration. The feasibility of abatement was considered for NSAs 1, 3, 5, 6 and 7. Local access constraints preclude consideration of noise

abatement for NSA 1. NSA 3 is comprised of a single residence; mitigation for this residence is not cost effective. Also, design year Build noise levels are within 3 dBA of design year No-Build noise levels, and therefore mitigation for NSA 3 is not reasonable. The reasonableness criteria cannot be satisfied for NSA 3. NSAs 5, 6, and 7 do not warrant abatement because they are within the BWI Airport Noise Zone, and are anticipated to shift from residential to commercial/industrial land use as part of the MAA airport noise abatement plan. The residences within these NSAs are considered to be non-conforming land use and are therefore exempt from mitigation consideration. Therefore, no noise abatement measures are proposed as part of this project. Within PVSP, noise levels are expected to exceed the 66 dBA threshold, but design year Build noise levels are predicted to be within 3 dBA of design year No-Build noise levels. The portions of the PVSP abutting the project area are limited to passive recreational uses, natural habitat and watershed benefits. For these reasons, abatement is not recommended for PVSP.

Consistent with the Final Rule updating 23 CFR 772 – Procedures for Abatement of Highway Traffic Noise and Construction Noise (issued July 13, 2010) the noise analysis findings and recommendations will be reevaluated for consistency with any subsequent revisions to SHA's Noise Policy (1998) adopted in compliance with the Final Rule and will be reflected in the final environmental document prepared for this project.

6. Hazardous Materials

An Initial Site Assessment was conducted to determine the presence of potentially hazardous materials associated with municipal, industrial, and residual waste materials sources within the study area. Of the 45 sites within and adjacent to the study area that were identified as having potential hazardous waste concerns, a total of 29 were recommended for a Preliminary Site Investigation that would be conducted during the project design stage. From the 29 properties identified for further investigation 25 of them contained underground/above ground storage tanks (UST/ASTs) creating the potential for contamination by petroleum and other fuel products. Two of the sites that contained UST/ASTs were also Resource Conservation and Recovery Act (RCRA) hazardous wastes generators with documented violations. Three other sites were identified with two sites containing dump sites with asphalt, concrete and tar-like substances and one site with a dry cleaning operation.

Table 5. Initial Site Assessment Study Areas

Site	Address	Environmental Concern	Sample media	PP Metals	PCBs	TOX	VOCs	SVOCs	TPH-GRO	TPH-DRO	BTEX	MTEB	TCLP Metals
Study Area 1													
BGE	7317 Parkway Drive, Hanover, MD 21076	LUST	Soil/ground water						X	X	X	X	
Bergman's Cleaners	7304 Parkway Drive, Hanover, MD 21076	Dry Cleaner	Soil/ground water				X	X					
Study Area 2													
Bell Atlantic Mobile	7267 Standard Drive, Dorsey, MD 21076	LUST	Soil/ground water						X	X	X	X	
Hearn Kirkwood Industrial Food	7251 Standard Drive, Hanover, MD 21076	LUST	Soil/ground water						X	X	X	X	
Lowe Enterprises:	7190 Parkway Drive, Hanover, MD 21076	UST, LUST	Soil/ground water						X	X			
Bel Air Produce:	7226 Parkway Drive, Hanover, MD 21076	UST, LUST	Soil/ground water					X	X	X			X
Parkway Industrial Center	7249 National Drive, Hanover, MD 21076	LUST	Soil/ground water						X	X			
Parkway Industrial Property	7270 Park Circle, Hanover, MD 21076	LUST	Soil/ground water						X	X			
International Union of Painters and Allied Trades:	7230 Parkway Drive, Hanover, MD 21076	UST, LUST	Soil/ground water						X	X			
Ramada Inn	7253 Parkway Drive, Hanover, MD 21076	UST, LUST	Soil/ground water						X	X			
Maiers Bakery	7260 Parkway Drive, Hanover, MD 21076	LUST	Soil/ground water					X	X	X			

Site	Address	Environmental Concern	Sample media	PP Metals	PCBs	TOX	VOCs	SVOCs	TPH-GRO	TPH-DRO	BTEX	MTEB	TCLP Metals
Haulotte USA:	7135 Standard Drive, Hanover, MD 21076	UST	Soil/ground water					X	X	X	X	X	
Lockheed Martin	7225 Standard Dr. Hanover, MD 21076	LUST	Soil/ground water						X	X	X	X	
KD tools	7200 Standard Dr. Hanover, MD 21076	UST	Soil/ground water						X	X	X	X	
Empty lot	7268 Park Circle, Hanover, MD 21076	LUST	Soil/ground water					X	X	X			
Study Area 3													
Dorsey Road Business Park	Dorsey Rd at MD 295	LUST	Soil/ground water					X	X	X			
Private Residence (AST)	1570 Dorsey Road, Hanover, MD 21076	AST	Soil/ground water						X	X	X	X	
Concrete and asphalt waste site	Along MD 295 north bound lane	Asphalt and concrete debris	Soil/ground water	X				X	X	X			
Study Area 4													
C & S Faulkner Inc	6520 Hanover Road, MD	LUST	Soil/ground water						X	X	X	X	
Waste Tar and 55 gallon drum	Near rail road crossing on Hanover Road	Tar and unknown contents of drum	Soil/ground water	X	X			X	X	X			
Study Area 5													
Embassy Suites	1301 Concourse Drive, Linthicum Heights, MD 21090	LUST	Soil/ground water						X	X			
Gateway Inter-national I	1302 Concourse Drive, Linthicum, MD 21090	UST	Soil/ground water						X	X			

Site	Address	Environmental Concern	Sample media	PP Metals	PCBs	TOX	VOCs	SVOCs	TPH-GRO	TPH-DRO	BTEX	MTEB	TCLP Metals
Gateway International II	1306 Concourse Drive, Linthicum, MD 21090	UST	Soil/ground water						X	X			
Brentwood Hotels	1110 Old Elkridge Landing Road, Linthicum, MD 21090	LUST, RCRAGN	Soil/ground water						X	X			
Study Area 6													
Northrop Grumman	7323 Aviation Blvd, Linthicum, MD 21090	LUST, RCRA, RCRA COR	Soil/ground water	X	X		X	X	X	X	X	X	
Study Area 7													
Fleck Machine Shop	7177 Ridge Rd. Hanover, MD 21076	UST, RCRAGN	Soil/ground water	X			X	X	X	X	X	X	
G.Beyer Residence	7217 Ridge Rd. Hanover, MD 21076	LUST	Soil/ground water						X	X	X	X	
David Smith Residence	7212 Valley Rd. Hanover, MD	LUST	Soil/ground water						X	X	X	X	
Study Area 8													
	Along MD 295 roadway within Study Area 8	Surface contamination	Surface soil	X				X					

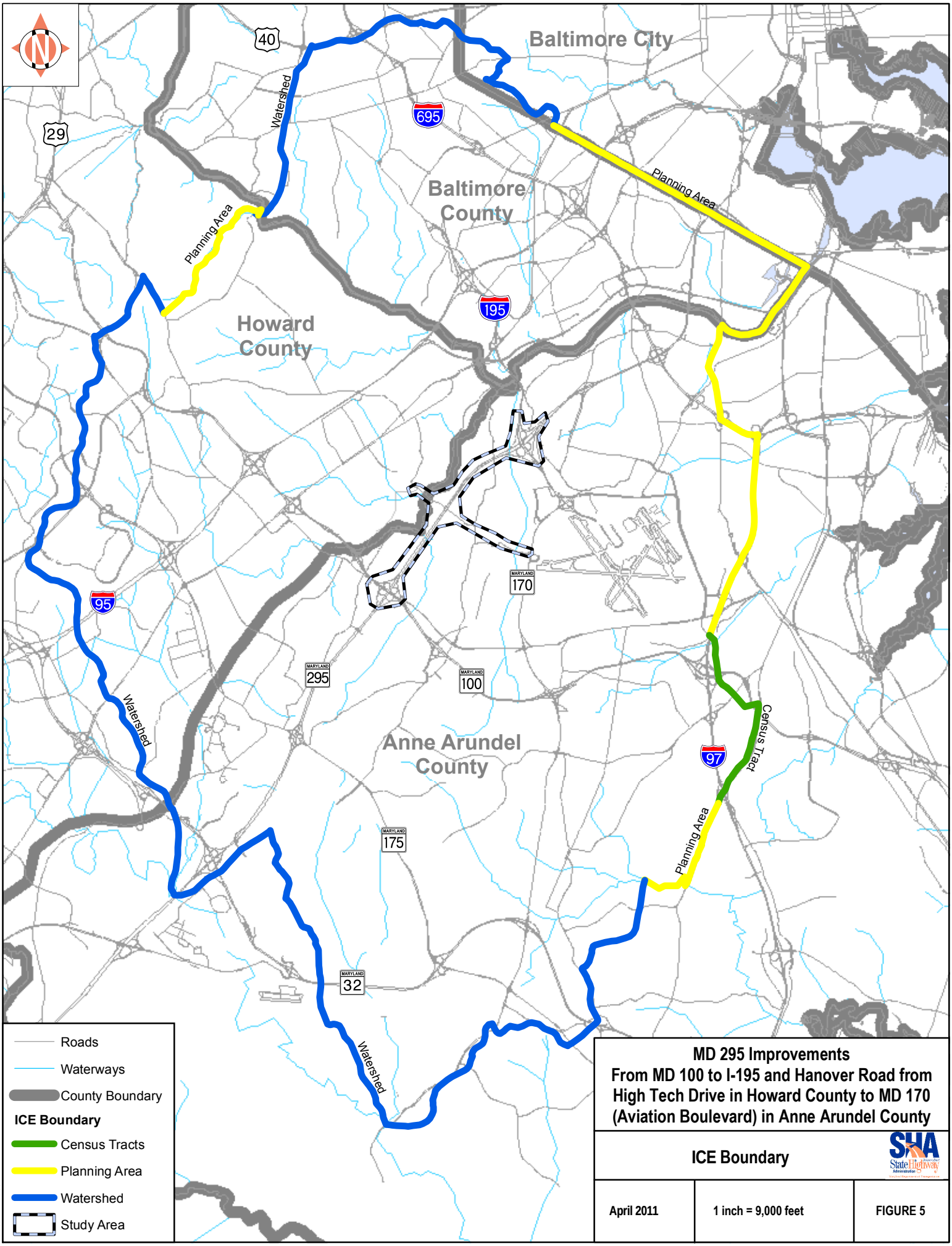
7. Indirect and Cumulative Effects Analysis (ICE)

The ICE analysis documented in the MD 295 Environmental Assessment concluded that no major indirect or cumulative impacts are anticipated. The project is located entirely within a Priority Funding Area and is consistent with objectives outlined in the SHA Consolidated Transportation Plan (CTP). No reasonably foreseeable indirect effects are expected to result from this project, as no planned public or private development projects are dependent upon improvements associated with the MD 295 project. Future development and growth within the ICE boundary (see Figure 5) would occur according to the Howard County General Plan, Anne Arundel County General Development Plan, and the BWI-Linthicum Small Area Plan.

Nevertheless, the potential for unforeseen future indirect effects should be acknowledged as a result of the new interchange and improvements to Hanover Road. The construction of an interchange at Hanover Road may enhance the attractiveness of that particular area to transportation-oriented business interests, although no such commercial projects have been proposed to date. Counties and municipalities also monitor and apply growth-management techniques that result in development at a pace that is consistent with existing transportation facilities and other necessary infrastructure. Any induced development would need to be compatible with land-use plans and zoning regulations. The nature of such development would also be constrained by the BWI Marshall Airport Noise Zone (ANZ). The ANZ is an area that has been established by MAA to address development in areas that are exposed to high noise levels.

Some degree of cumulative impacts to community and natural resources (parks and recreation areas, wetlands and waterways, agricultural lands, rare, threatened and endangered species, groundwater and woodlands) would likely occur due to the direct impacts associated with the MD 295 project, as well as other proposed development within the ICE Analysis boundary. Cumulative effects to natural resources would be adverse, and effects on particular community resources could be either beneficial or adverse, depending upon the resource. Some impacts to environmental resources are regulated by applicable state, local, and federal laws that mandate avoidance, minimization, and/or mitigation measures which reduce the overall contribution to cumulative effects associated with this project, as well as other future residential, commercial, industrial, and transportation projects within the project area. Therefore, the overall contribution to cumulative impacts on resources within the ICE analysis boundary resulting from this project was determined to be minimal. Future development and growth within the ICE area would be molded by state and county land development plans. SHA would continue to work with local governments and agencies to promote beneficial controls and suggest that local jurisdictions develop resource preservation plans. However, efforts to avoid, minimize, and mitigate impacts caused by cumulative development within the ICE Analysis boundary would be beyond the control and funding authority of SHA. Anne Arundel, Howard, and Baltimore Counties and each individual municipality are ultimately responsible for monitoring and applying growth management techniques that result in development at a consistent pace with

roadways and other necessary infrastructure. Mitigation for cumulative effects to environmental resources must be considered by the responsible parties and regulatory agencies.


Baltimore City
Baltimore County
Howard County
Anne Arundel County
40
29
695
195
95
MARYLAND 170
MARYLAND 295
MARYLAND 100
97
MARYLAND 175
MARYLAND 32
Watershed
Planning Area
Census Tract
Roads
Waterways
County Boundary
ICE Boundary
Census Tracts
Planning Area
Watershed
Study Area
MD 295 Improvements
From MD 100 to I-195 and Hanover Road from High Tech Drive in Howard County to MD 170 (Aviation Boulevard) in Anne Arundel County
ICE Boundary
April 2011
1 inch = 9,000 feet
FIGURE 5

III. SUMMARY OF PUBLIC INVOLVEMENT

A. Public Workshops and Hearing

A public workshop to discuss the MD 295 Alternatives was held on January 11, 2006, at Lindale Middle School in Linthicum. The purpose of the workshop was to provide an opportunity for area residents and community representatives to review, ask questions, and comment on the conceptual designs of the proposed alternatives. Of the 94 people who attended the workshop, a majority favored the proposed widening of MD 295, the new interchange at Hanover Road, and the improvements to Hanover Road. Twenty-one comment cards and letters or emails were submitted to SHA following the workshop, and most expressed support for one or more of the build alternatives.

The MD 295 Location/Design Public Hearing was held on Tuesday, September 25, 2007 to present the ARDS and the findings as stated in the environmental document. Approximately 86 people attended and 6 people testified at the hearing. Twenty comment cards and several emails were received regarding the project. Those who attended confirmed many of the important issues raised at the Alternates Public Workshop. The majority of the support was given to Alternatives 3A, 4A, 7, and 8. The comments and SHA's responses are summarized below in Table 6 below.

The SHA met with a Focus Group that consisted of various community associations, business owners, residents, and other interested citizens throughout the project planning process. At the request of the BWI Business Partnership Committee, the SHA gave regular updates on the MD 295 Project Planning project to this committee.

In summary, as a result of the Focus Group, the Alternates Public Workshop, the Public Hearing, and other community meetings, citizen suggestions have been incorporated in the design of the SHA Preferred Alternative for the corridor. Additionally, the SHA Preferred Alternative has been designed to provide safe conditions for motorists, bicyclists, and pedestrians, with the construction of a sidewalk, hiker/biker facilities, and an improved roadway facility.

B. Summary of Written Comments and SHA Responses

At the public hearing, a majority of the concerns from the individuals who provided public testimony consisted of the impact that the traffic would have on the existing communities west of the CSX tracks at Hanover Road in Howard County, community involvement, and environmental impacts.

The Preferred Alternative 7, which includes Hanover Road shifted to the south will not impact the communities west of the CSX tracks at Hanover Road. The community traffic patterns to access Hanover Road will remain the same. The Hanover Road improvements at the CSX tracks are designed to deter any additional traffic from using the existing communities west of the CSX tracks by providing a more "S" shape concept and keeping Hanover Road as a two-lane facility at this location. A four-lane divided roadway will begin at High Tech Drive to east of Hanover Road to accommodate traffic destined for BWI and business and commercial facilities in the area

Residents from Howard County sent emails in 2007 expressing opposition to the new interchange at Hanover Road based on concerns about impacts to the natural environment and PVSP. Other comments included questions about the improvements to Hanover Road in Howard County, a recommendation to close Hanover Road at the CSX crossing, and concerns about the pace of development in the area and increased traffic along Hanover Road. SHA would defer all decision to close Hanover Road to the county. The county indicated they would want to keep the connection open for emergency response reasons and general connectivity to the airport. The project limits would be the CSX tracks; therefore comments regarding improvements to Hanover Road west of the tracks would be addressed by the County. Since the hearing SHA modified the concept at Hanover Road and High Tech Drive to be a T-intersection and a spur for the westbound Hanover Road traffic due to coordination with Howard County and a development slated for the area adjacent to the connection.

Table 6. Summary of Public Written Comments from the Location Design Public Hearing held on Tuesday, September 25, 2007.

Citizen's Comments	From	SHA's Response
Is there any reason for limiting the scope of work to the I-295 area?	David Maier	Howard and Anne Arundel counties played a major role in defining the scope and limits for the project. They requested for the State Highway Administration to investigate improvements along Hanover Road from High Tech Drive to MD 170. It was determined that this segment of the roadway is projected by Howard and Anne Arundel counties to generate greater traffic due to the extensive developments that are planned for the area.
Why not connect Hanover Road and South Hanover Road to create a better link between US 1 and MD 295.		Connecting Hanover Road and South Hanover Road would potentially displace residents and impact current development; therefore, it is not included in the project scope.
Concerns regarding Native Americans artifacts located in the area of Deep Run. Requested team to investigate in further detail.	Gregory Filar	Your comments regarding potential findings of archeological artifacts in the southwest quadrant would be addressed in more detail when funding becomes available for the next phase of the Highway Development Process. At this time, a Phase I Archeological Survey was conducted during Project Planning , and three sites were identified, which were considered potentially eligible for inclusion in the National Register of Historic Places. A Phase II Archeological Investigation (to confirm eligibility status) would be conducted when the project enters into design phase of the Highway Development Process. Also, the SHA would continue Section 106 coordination with the Maryland Historical Trust as the project progresses.
Has a traffic impact study been completed on MD 170 and Dorsey Road? What is the effect on MD 170 near Northrop Grumman?	Jon Rolf	The State Highway Administration conducted a traffic analyses for the entire project limit, which included MD 170 at Northrop Grumman; however, since Dorsey Road is out of the project area the traffic study did not encompass Dorsey Road. Traffic analyses have been conducted for existing conditions and the proposed conditions, including directional access ramps at MD 170 and Hanover Road, forecasted to the year 2030. Under a future No-Build option, that study location is projected to operate at failing Level of Service (LOS) **'F"** conditions in 2030. With planning study improvements in place, traffic conditions at the MD 170 and Hanover Ramp intersection are projected to improve to acceptable LOS **'B'** conditions. LOS is a measure of the congestion experienced by drivers and ranges from LOS A (free flow, little or no congestion) to LOS F (failure, with stop-and-go conditions).
MD 170 between I-195 and		Because Dorsey Road is a County Road, your recommendation to include improvements to Dorsey Road would need to be proposed to

Dorsey Road should be included in this project		the SHA from the County. This project has the current study limits because this area was identified as a priority by Howard and Anne Arundel counties. They requested for the State Highway Administration provide improvements along Hanover Road from High Tech Drive to MD 170. It was also determined that this segment of the roadway is projected by Howard and Anne Arundel counties to generate greater traffic due to the extensive developments that are planned for the area.
Include dedicated bike lanes along Hanover Road		As part of the State Highway Administration Preferred Alternative 7, the improvements to Hanover Road include dedicated bicycle lanes along Hanover Road between High Tech Drive and Corporate Center Drive and New Ridge Road. Also, a 10-foot hiker /biker trail would be placed on the north side of Hanover Road and a 5-foot sidewalk on the south side.
Provide improvements along Hanover Road west of CSX tracks. Concerned about the amount of traffic along Hanover Road and pedestrian accommodations	Thomas Kyle	In order for the State Highway Administration to address your concerns regarding improvements to Hanover Road west of the CSX tracks, a request would need to come from Howard County. Therefore we will forward your request to Mr. Jim Irvin, Director of Howard County Department of Public Works. He can also be reached at 410-313-4400 or via e-mail at jirvin@co.ho.md.us. Regarding your comment on pedestrian improvements, within the limits of this project, sidewalks are proposed on the south side of Hanover Road from High Tech Drive in Howard County and Corporate Center Drive in Anne Arundel.
Concerns regarding the impact to the deer.	Thomas Kyle	The State Highway Administration is committed to working with the community and environmental resource agencies to minimize impacts to natural, cultural, and social resources. The State Highway Administration would continue to coordinate with the Department of Natural Resources (DNR) throughout the Planning Phase and also in Final Design as funding becomes available.
Provide a traffic control device at Hanover Road and High Tech Drive intersection	Douglas Kornreich	A signal warrant analysis would be conducted to determine the need for a traffic signal at Hanover Road and High Tech Drive in the next phase of the Highway Development process as funding becomes available to move forward.
Provide bike and pedestrian connectivity to the surrounding communities west of CSX tracks		The Preferred Alternative provides hiker/biker trails and sidewalks within the project limits along Hanover Road from High Tech Drive to MD 170. Provision of any additional bike and pedestrian connectivity to the surrounding communities west of CSX track should be directed to Mr. Jim Irvin, Director of Howard County Department of Public Works. He can be reached at 410-313-4400 or via e-mail at jirvin@co.ho.md.us.
Improve Hanover Road and CSX intersection		Since Hanover Road is a County road, your comment to improve the intersection of Hanover Road and CSX would be forwarded to Mr. Jim Irvin, Director of Howard County Department of Public Works. He can be reached at 410-313-4400 or via e-mail at

		jirvin@co.ho.md.us.
Provide traffic light at Hanover Road and High Tech Drive intersection	Robert M. Hibbert	A signal warrant analysis would be conducted to determine the need for a traffic signal at Hanover Road and High Tech Drive in the next phase of the Highway Development process as funding becomes available to move forward.
Concerned about impacts to green space and the impact to Hanover Road	Richard and Ava Spece	The State Highway Administration is committed to working with the community and environmental resource agencies to minimize impacts to natural, cultural and social resources. Woodland impacts were minimized by adjusting slopes to 2:1 and reducing the median width on Hanover Road. The forest cover would be replaced on an acre-for-acre, one-to-one basis within a year of project completion in accordance the Maryland Reforestation Law. The State Highway Administration will continue to coordinate with the Department of Natural Resources (DNR) regarding any impacts associated with the Patapsco Valley State Park throughout the Planning Phase and also in Final Design as funding becomes available. SHA has recognized that local communities are concerned about the potential for increased traffic on Hanover Road. In response to concerns raised by local residents, SHA designed the through movement along Hanover Road to connect to High Tech Drive. Motorists that want to travel into Elkridge area would have to make a right turn onto Hanover Road.
	Richard and Ava Spece	
Provide improvements along Hanover Road in Howard County.	N. Wahls	Since Hanover Road is a County road, your comment to provide improvements along Hanover Road in Howard County will be forwarded to Mr. Jim Irvin, Director of Howard County Department of Public Works. He can be reached at 410-313-4400 or via e-mail at jirvin@co.ho.md.us.
In favor of Alternatives 3A, 4A, 7 or 8	Richard Demmitt	Your support for Alternatives 3A, 4A, 7 and 8 has been noted.
Widen and improve all of Hanover Road not just a part of Hanover Road in both Howard and Anne Arundel counties.	Kim McVaney	The proposed improvements along Hanover Road extend from High Tech Drive to MD 170. The segment of the roadway which would be improved in Howard County was requested by Howard County due to the projected traffic that would be generated and the extent of development planned for the area. However, the State Highway will forward your concern about the extension of the project limits on Hanover Road to Mr. Jim Irvin, Director of Howard County Department of Public Works. He can be reached at 410-313-4400 or via e-mail at jirvin@co.ho.md.us.
Close Hanover Road at CSX crossing. Support No-Build. Widen I-195, MD 100 and MD 295.	Glenn Amato	Your support for the No-Build Alternative has been noted. SHA has worked closely with Howard County throughout the planning process in the development of alternatives and the Hanover Road improvements at the CSX tracks. The proposed improvements originally developed was designed to minimize cut through traffic but

		was ultimately left open at the request of Howard County. At this time, the CSX Track would remain open until further direction is provided from Howard County. The State Highway will however, forward your concerns to Mr. Jim Irvin, Director of Howard County Department of Public Works. He can also be reached at 410-313-4400 or via e-mail at jirvin@co.ho.md.us. As part of the MD 295 Project Planning Project Study, MD 295 would be widened within the median from I-195 to MD 100.
Concerns about residential displacement, and park and forest impacts, pedestrian and bicyclist safety.	Mary Jean Wojewodzki	Your concerns regarding the MD 295 Project Planning Study have been noted. The project team will coordinate closely with the Maryland Department of Natural Resources regarding any impacts associated with the Patapsco Valley State Park. The State Highway Administration has recognized that local communities are concerned about the potential for increased traffic on Hanover Road. In response to concerns raised by local residents, SHA designed the through movement along Hanover Road to connect to High Tech Drive. Motorists who want to travel into the Elkridge area would have to make a right turn onto Hanover Road. In addition, SHA developed the proposed cross-section for Hanover Road to include 10-foot outside lanes, a 10-foot hiker/biker trail on the north side, and a 5-foot sidewalk on the south side to accommodate bicycle and pedestrian needs safely.
Concerned about growth and development in the area as well as impacts to natural resources.	Steven and Ellen Ayers	The State Highway Administration (SHA) is committed to working with the community and environmental resource agencies in designing and constructing an alternative that minimizes impacts to natural, cultural, and social resources. SHA does not take the lead on zoning and redevelopment; it is the role Anne Arundel and Howard County's Office of Planning & Zoning to plan for physical growth and development of the counties. If you have further questions regarding development and long range planning, please contact the Anne Arundel County Office of Planning and Zoning Long Range Planning Office at 410-222-7432 and the Howard County Department of Planning and Zoning at 410-313-3467.
Leave the decision to planners to develop concepts to accommodate future commercial and residential growth	Lyle S. McCulough	Thank you for your support of the MD 295 Project Planning Study. The State Highway Administration is committed to working with the community and environmental resource agencies in designing and selecting an alternative that minimizes impacts to natural, cultural, and social resources.

IV. AGENCY CORRESPONDENCE AND COORDINATION

Coordination with cooperating agencies, Baltimore Metropolitan Council (BMC), MHT and Maryland Department of Planning, environmental resource agencies, community organizations, and the public has been an important component of the MD 295 project. This section summarizes the coordination with federal, state, and local agencies since the approval of the Environmental Assessment.

A. Streamlined Process Coordination

As part of Maryland's Streamlined Environmental and Regulatory Process, interagency meetings were held at critical points during project planning to keep the involved parties informed and solicit feedback. Milestone documents were also submitted to agencies for their review and comment.

The Environmental Assessment includes the streamlined process coordination for the Purpose and Need and ARDS. Since the approval of the Environmental Assessment, SHA presented the Preferred Alternative/Conceptual Mitigation (PA/CM) to the agencies. A draft PA/CM was submitted to the agencies on October 8, 2009 and resubmitted April 1, 2010. SHA requested final comments be provided by April 15, 2010. Table 7 provides a list of agency correspondence on the PA/CM. **Appendix E** provides a copy of the PA/CM summary as well as all written agency correspondence.

Table 7. PA/CM Agency Correspondence to SHA

PA/CM Correspondence Type	From	Date
Concurrence	U.S. Army Corps of Engineers	11/12/09
Concurrence	Environmental Protection Agency	04/12/10
Concurrence	National Marine Fisheries Service	04/27/10
Concurrence	Maryland Department of the Environment	04/27/10
Concurrence	National Park Service	05/19/10
Concurrence	U.S. Fish and Wildlife Service	06/10/10
Concurrence	Federal Highway Administration	06/18/10
Comments	Metropolitan Planning Organization	11/17/09
Comments	Maryland Historical Trust	11/17/09
Comments	Maryland Department of Planning	11/23/09
Comments	Maryland Department of Natural Resources	05/14/10

B. Government Agencies and Elected Officials Comments

A summary of correspondence from SHA to government agencies and elected officials since the Location Design Public Hearing is included in Table 8. A complete copy of agencies' written comments and SHA's response to each is provided in **Appendix C**.

Table 8. SHA Correspondence to Government Agencies and Elected Officials

Date	To	Comment
01/25/2008	Maryland Department of Natural Resources	Provides information on the location of 5 bog fern populations, identifying construction-related measures that would minimize the potential for indirect impacts, and discussing impacts to the Wetland of Special State Concerns near Stoney Run Road west of the AMTRACK/MARC railroad tracks near MD 170.
01/24/08	Maryland Historical Trust	Effect determination letter sent to MHT for their concurrence on no historic properties adversely affected by the Preferred Alternative 7.
06/16/10	Maryland Department of Natural Resources-(Maryland Park Service)	Summarizes the meeting held on April 21, 2010 to discuss *de minimis* impact.

Appendix A:
Administrator's Selection Meeting Minutes

MD 295 Project Planning Study
Finding of No Significant Impact

MEMORANDUM

TO: Mr. Gregory I. Slater
Director
Office of Planning and
Preliminary Engineering

FROM: Bruce M. Grey BMG
Deputy Director
Office of Planning and
Preliminary Engineering

DATE: February 11, 2009

RE: MD 295 Project Planning Study
Anne Arundel and Howard Counties
Project Number AA372B11

SUBJECT: Selected Alternative Meeting with the Administrator

On Tuesday, June 10, 2008, the Project Team met with the Administrator to present the team's Preferred Alternative, Alternative 7 with Hanover Road shifted to the south. The goal of this meeting was to seek concurrence on this alternative from the State Highway Administrator.

The following people were in attendance:

Carmeletta Harris	SHA-PMD	(410) 545-8522
Tessa Young	SHA-PMD	(410) 545-8527
Neil Pedersen	SHA – Administrator	(410) 545-0400
Raja Veeramachaneni	SHA – (former) Director OPPE	(410) 545-0412
Joe Harrison	SHA-PMD	(410) 545-8506
Alvaro Sifuentes	Jacobs	(410) 837-5840
George Cardwell	AA County OPZ	(410) 222-7440
Bruce Grey	SHA – OPPE	(410) 545-8500
Kirk McClelland	SHA – OHD	(410) 545-8800
Derek Gunn	SHA- Travel Forecasting	(410) 545-5642
Brian Muldoon	Howard Co. Planning	(410) 313-4363
Bala Akundi	Balto. Metropolitan Council	(410) 732- 0500 ext. 1019

Ian Cavanaugh	FHWA – Area Engineer	(410) 779-7147
Theo Ngongang	MDOT – Office of Planning	(410) 865-1308
Theresa Christian	SHA- PMD	(410) 545-8697
Linda Mott	OED – LAD	(410) 545-8620
Lindsay Bobian	SHA- HDD	(410) 545-8765
Bryan Townsend	Whitman, Requardt & Assoc.	(443) 224-1667
Jerry Smith	SHA- RIPD	(410) 545-5675
Melissa Blair	SHA- PMD	(410) 545-8560
Harriet Levine	Jacobs	(410) 230-6630
Nora Bucke	SHA- EPD	(410) 545-8643
Madan Gaddam	SHA-OMT-PGD	(443) 572-5065
Devana Spivey	FHWA	(410) 779-7140
Vivian V. Berra Figuereo	SHA-OHD	(410) 545-8852
Mark Grofcsik	SHA-OHD	(410) 545-8869
Joe Harrison	SHA –PMD	(410) 545-8506
Jennifer Armes	SHA - ORE	(410) 841-1067
Sue Bauer	SHA – ORE	(410) 841-1057
Debra Russell	SHA – D5	(410) 841-1079
Prakash Dave	SHA – Bridge	(410) 545-8355

Handouts included:

- Meeting Agenda
- Summary of Public Comments
- Pros and Cons Sheet
- MD 295 and Hanover Road Typical Section

The meeting began at 10:30 AM. Ms. Carmeletta Harris introduced herself to the group, thanked everyone for attending, and then asked the members to introduce themselves.

Purpose of the Meeting

Ms. Harris stated that the purpose of this meeting was to present the team's Preferred Alternative to the SHA Administrator for his concurrence.

Public Hearing Comments

Ms. Harris stated that approximately 86 people attended the MD 295 Public Hearing on September 25, 2007. Twenty comment cards were received in addition to several emails. Ten comments were received by email against the proposal to add an interchange at MD 295 and Hanover Road because of impacts to the natural environment including the Patapsco Valley State Park. Other comments received at the meeting included questions regarding improvements to Hanover Road in Howard County, increase of traffic along Hanover Road, pace of development in the area, for Hanover Road to be closed at the CSX crossing and impacts to the deer population. Mr. Neil Pedersen, the SHA Administrator, questioned if the team had officially heard from the Howard or Anne Arundel County Executives. Ms. Harris responded that no official response had been received by the counties. Mr. George Cardwell added that this project is high on Anne Arundel County's priority list.

Environmental Overview

Ms. Theresa Christian then gave an overview of the environmental features and impacts for the project. Depending on the alternative, there would be 3 to 4 residential displacements. Alternatives 3 and 4 would each have 4 residential displacements and Alternatives 3A, 4A, 7, and 8 would each have 3 residential displacements. The project has no business displacements.

Alternative 7, the Recommended Alternative is the alternative with the least amount of impacts to streams, wetlands, forests and the Patapsco Valley State Park. Under Alternative 7, there will be 2.85 acres of parkland impacts, 33.2 acres of forest impacts, 3.64 acres of wetland impacts and 12,850 linear feet of stream impacts.

A mitigation site search field meeting was held with the agencies on Wednesday, March 12, 2008. A Preferred Alternative Conceptual Mitigation package will be prepared for the project and will be handed out to the agencies after the Administrator concurs on the alternative.

A meeting was held with the Department of Natural Resources (DNR) on June 2, 2008 to discuss mitigation for impacts to the Patapsco Valley State Park. DNR will be providing SHA with a list of potential mitigation options and coordination with DNR will continue throughout the Project Planning Phase. SHA will seek DNR's concurrence and then the Federal Highway Administration's (FHWA) approval on a De Minimis impact finding for the impacts to the Patapsco Valley State Park. Mr. Pedersen asked if the team believed that we would get De Minimis concurrence from the park. Ms. Christian responded that the park is aware of the impacts and the team believes that De Minimis concurrence will be given by the park.

On Thursday, July 5, 2007, SHA received concurrence from Anne Arundel County Parks and Recreation that temporary construction impacts would result from the relocation of the BWI Trail. The trail will be relocated between the eastern end of the Stoney Run Road bridge over MD 170 to the Northrop Grumman entrance for a length of approximately 400 feet. However, the land being used will be fully restored, and the trail will be returned to a condition that is at least as good as that which existed prior to the project.

Review of Alternatives

Mr. Alvaro Sifuentes described the seven alternatives that were presented at the MD 295 Public Hearing. The No-Build Alternative consists of routine maintenance and spot improvements to the existing roadways. Minor improvements would occur as part of normal maintenance and safety operations. The No-Build Alternative does not address the Purpose and Need for the project, it does serve as a baseline for comparing the impacts and benefits associated with the other build alternatives.

All of the build alternatives include widening MD 295 as well as improvements along Hanover Road. The existing MD 295 mainline would be widened to six lanes along the inside of the roadway from south of the MD 100 interchange to north of the I-195 interchange. A 12-foot lane and a 10-foot shoulder would be added to the inside of the existing roadway, providing three 12-foot lanes, a 10-foot inside shoulder, and a 12-foot outside shoulder in each direction. The existing bridges over MD 100 would have to be widened to accommodate the additional lane and shoulder. Mr. Pedersen asked if the weaving lane was separated from the through lanes for the MD 295 at MD 100 interchange. Mr. Sifuentes added that the weave lane was adjacent to the through lanes. Mr. Pedersen inquired whether the weaving was operating acceptably. Mr. Sifuentes responded that the weave movements were expected to fail by the year 2030. The addition of the third lane in each direction would greatly improve the weaving but MD 295 would still experience LOS F for the directional peak hours. Mr. Pedersen asked the team to investigate if adding a separation between the weaving lane and through lanes would improve the weaving operation. After the meeting, Mr. Derek Gunn, the Travel Forecaster, investigated the separation of through traffic from the weaving movement and concluded that this would still result in Level of Service (LOS) F in both peak hour directions. He concluded that the driving factor for the failing weave is the extremely short weaving distance which is less than 550 ft. in both directions.

Hanover Road will be upgraded to a four-lane roadway (two lanes in each direction), and have 12-foot inside lanes and 16-foot outside lanes to accommodate bicyclists. It will also include a 20-foot median, a 10-foot hiker/biker trail on the north side and a five foot sidewalk on the south side between High Tech Drive in Howard County and Corporate Center Drive in Anne Arundel County. Mr. Pedersen asked where the hiker/ biker trail ended on the west side.

Mr. Sifuentes responded that the hiker/biker trail ends at the connection with existing Hanover Road before the railroad tracks. Hanover Road would also be extended east beyond Corporate Center Drive / New Ridge Road as a four-lane undivided roadway with a 10-foot hiker/biker trail on the north side. The typical section of the roadway was reduced in this area to minimize impacts to sensitive environmental areas around Stoney Run and to use the existing structures over Stoney Run and MD 170. All of the build alternatives would add a ramp from southbound MD 170 (Aviation Boulevard) onto Stoney Run Road and a ramp from Stoney Run Road to southbound MD 170. Mr. Cardwell asked if the team had coordinated with Maryland Transit Administration (MTA) to leave enough space between the proposed ramp and the existing tracks for any future Maryland Rail Commuters (MARC) expansion. Ms. Harris responded that no coordination with MTA had occurred. Mr. Pedersen asked for the team to coordinate with MTA to determine if their future transit expansion needs will be consistent with the proposed ramps. The team coordinated with MTA after the meeting. MTA currently has 3 MARC train rail lines that goes out to MD 170 (Aviation Boulevard) and has no future transit expansion needs in the area of the proposed ramps.

Mr. Cardwell asked if the team was aware of the plans that Northrop Grumman has to relocate all of their entrances to the entrance off of Stoney Run. Mr. Sifuentes responded that the team was aware of those plans and has been in contact with the SHA District 5 Traffic Division regarding the changes to the proposed traffic volume going in through that entrance. To date, the District has not received any new traffic numbers from Northrop Grumman. Mr. Sifuentes added that once the new traffic numbers are received we will have to analyze the operation of the ramps again. Mr. Cardwell responded that the County hasn't received any numbers either. Mr. Pedersen mentioned that the direct access ramps issue should remain open until SHA analyzes the effect of the proposed new traffic on the ramps. Mr. Sifuentes added that District traffic had expressed that same concern and that one solution would be to make the ramp from southbound MD 170 onto Stoney Run a right-turn only ramp. All Northrop Grumman employees would have to make a left onto existing MD 170 at Stoney Run Road intersection instead of using the ramp. Mr. Pedersen asked if the Maryland Aviation Administration (MAA) had any opinions regarding the direct access ramps. Ms. Harris responded that she wasn't aware of any opinions on the ramp from the MAA. Mr. Pedersen asked that the team send the staging plan to MAA for their review and comment. The staging plan was sent to MAA representatives after the meeting. MAA had no substantive comments except that BWI should be referred to as BWI Marshall in all documentation.

The build alternatives differ among the interchange proposed at MD 295 and Hanover Road as well as the location of where Hanover Road crosses MD 295. The description of these alternatives along with their pros and cons are described below.

Alternative 3 – Compressed Diamond Interchange

Under this alternative, a compressed diamond interchange would be built at MD 295 and existing Hanover Road. Ramps to and from MD 295 would meet Hanover Road at signalized intersections on either side of MD 295. This alternative has the lowest construction cost, the lowest number of floodplain impacts, the second lowest amount of right-of-way required and is also a traditional type of interchange which most people are accustomed to. In addition, this alternative has the highest number of potential residential displacements (same as Alternative 4) and has the second highest impacts to waterways and wetlands. Mr. Pedersen asked how the two signals at the ramp terminals operated. Mr. Gunn responded that both signals operated at LOS A/B and added that all of the interchange alternatives under consideration operated at a LOS A or LOS B.

Alternative 3A – Compressed Diamond Interchange with Relocated Hanover Road

Under this alternative, Hanover Road would be relocated approximately 200 feet south of the existing alignment and a compressed diamond interchange would be built at MD 295 and relocated Hanover Road. Ramps to and from MD 295 would meet Hanover Road at signalized intersections on either side of MD 295. This alternative has the lowest number of potential residential displacements. The southern shift moves away from natural and social resources located on the northwest quadrant of the interchange and is also a traditional type of interchange that people are accustomed to.

Alternative 4 – Single Point Urban Interchange (SPUI)

Under this alternative, a single point urban interchange (SPUI) would be built at MD 295 and Hanover Road. While similar to traditional diamond interchanges, SPUI ramps curve inward and meet at a single traffic signal below or underneath the bridge, allowing opposing left turning movements to occur simultaneously. This alternative requires the lowest amount of right-of-way, has the second lowest construction cost and has the second lowest number of floodplain impacts; however, this type of interchange could be confusing for first time users, it has the highest number of potential residential displacements (same as Alternative 3), the highest number of stream impacts, the highest number of woodland impacts, and the highest number of park impacts.

Alternative 4A – Single Point Urban Interchange with Relocated Hanover Road

Under this alternative, Hanover Road would be relocated approximately 200 feet south of the existing alignment and a single point urban interchange (SPUI) would be built at MD 295 and relocated Hanover Road. While similar to traditional diamond interchanges, SPUI ramps curve inward and meet at a single traffic signal below or underneath the bridge, allowing opposing left turning movements to occur simultaneously. This alternative has the lowest number of potential residential displacements and the southern shift moves away from natural and social resources located on the northwest quadrant of the interchange; however, this type of interchange could be confusing for first time users and it has the highest number of wetland impacts.

Alternative 7 – Hanover Road shifted to the south

Under this alternative, a loop ramp would be built in the southwestern quadrant of the interchange to allow movement from southbound MD 295. One-way directional ramps would be built on the northeast and southeast quadrants to allow movements to and from northbound MD 295. No ramps would be built in the northwestern quadrant of the interchange to avoid impacts to the parkland, wetlands and the residential area in the quadrant. This alternative avoids impacting parks and wetlands on the northwest quadrant of the interchange, has the lowest number of wetland impacts, stream impacts, residential displacements, and woodland impacts; however, this alternative has a high construction cost and the highest amount of right-of-way required. Mr. Pedersen mentioned that the price difference between Alternative 3A and Alternative 7 was $7 million. Mr. Sifuentes responded that the main cost difference between the two alternatives was the higher right-of-way costs for Alternative 7 due to the loop ramp on the southwest quadrant. Mr. Pedersen asked Mr. Cardwell if the development community was being asked to contribute funds for highway projects. Mr. Cardwell responded that developers are paying impact fees that could be used towards public infrastructure.

Alternative 8 – Diverging Diamond Interchange with Relocated Hanover Road

Under this alternative a diverging diamond would be built at MD 295 and Hanover Road. The diverging diamond interchange switches traffic at the ramp terminals, over to the opposite side of the roadway within the interchange. This promotes left-turn movements and eliminates the left-turn signal phase improving the interchange's efficiency. This traffic pattern improves capacity and minimizes the length of the queues which can normally cause failure within a diamond interchange. This alternative has the lowest number of residential displacements, the second lowest number of stream and wetland impacts; however, this alternative has the highest construction cost, it impacts the proposed Preston Gateway development, and it could also be considered confusing to first time users.

Mr. Sifuentes added that the team will be investigating other possible locations for the Stormwater Management pond that had been shown off of Corporate Center Drive. Possible locations off of existing New Ridge Road are being considered as well as potentially providing some underground treatment.

Maintenance of Traffic Review

Mr. Sifuentes discussed the maintenance of traffic for the project. All of the widening work along MD 295 will occur in the median. A temporary bridge would be needed over proposed and existing Hanover Road. Mr. Pedersen mentioned that the first thing to do once the project is transferred to Highway Design pending further funding was to conduct a maintenance of traffic review.

Hanover Road would be built in two phases. The first phase would consist of building the new section of Hanover Road that currently does not exist. Once that section is complete, traffic would be transferred from the existing roadway onto the new section and construction would continue on the remaining section of Hanover Road from High Tech Drive to Ridge Road. Mr. Pedersen asked how the new bridges over Deep Run would be built. Mr. Sifuentes responded that the two new lanes and bridge on Hanover Road, north of the existing lanes would be build first. Once that new bridge is built, traffic will be transferred over and the existing lanes and structure would be upgraded.

Staging Plan

Mr. Sifuentes mentioned that a staging plan has been developed for the MD 295 Project Planning Study. This plan has been sent to both Anne Arundel and Howard counties for their review and comment. Mr. Pedersen asked if the representatives from Anne Arundel and Howard counties had any comments. Mr. George Carwell and Mr. Brian Muldoon both stated that they were comfortable with the plan. Mr. Sifuentes mentioned that the plan has been prioritized based on future traffic operations. The first priority would be to build the ramp from southbound MD 170 onto Stoney Run Road.

The existing MD 170 at Stoney Run Road intersection is expected to experience failing Levels of Service by the year 2010 to 2011 as a result of intense development in the area. The addition of this ramp would improve the operation of the existing intersection by removing the heavy left-turn movement traveling south on MD 170 and making a left-turn onto Stoney Run Road. The cost for this ramp would be $6.3 million.

From an operational standpoint, the second priority would be given to the widening of MD 295 from south of MD 100 to of I-195. The mainline of MD 295 as well as many of the merges, diverges and weaves at the MD 100 and I-195 interchanges are expected to operate at a LOS F in the year 2030. The total cost for these improvements which include widening the bridges over MD 100 would be $60.2 million.

The third priority would consist of the construction of the new interchange at MD 295 and Hanover Road as well as improvements to Hanover Road between the western ramp terminal and the eastern end of the project at Stoney Run Road. Mr. Pedersen asked if the interchange could be built by itself without improving Hanover Road. Mr. Sifuentes responded that if the interchange is built by itself, the traffic generated by the interchange would not be supported by the existing infrastructure and intersections. The cost for this section would be $78.1 million.

The fourth priority would consist of the construction of the ramp from Stoney Run Road to southbound MD 170. By adding this movement, the existing traffic signal at the MD 170 and Stoney Run Road intersection could be removed and the intersection would become a right-in/ right-out intersection. The cost for this section would be $4.9 million. Mr. McClelland asked if the existing structures over MD 170 were wide enough to accommodate the vehicles making a left to head southbound on MD 170. Mr. Sifuentes responded that the typical section in that area was reduced to a four-lane undivided section with a 10-foot hiker/ biker trail on the north side in order to be able to use the existing structure. The existing numbers that we have for Northrop Grumman show that the left-turn movement would be very low and could be accommodate by a through-left lane. Mr. Sifuentes added that as mentioned earlier operational analysis for the intersections would have to be reviewed once the new traffic numbers from Northrop Grumman are received.

The fifth priority would include improvements to Hanover Road between the western ramp terminals and the western project limits from High Tech Road to MD 170. The cost for this section would be $20 million.

Storm Water Management (SWM) Sites

Mr. Sifuentes mentioned that a meeting was also held with representatives from Maryland Department of Transportation (MDOT) and MAA to discuss the proposed SWM pond located off of Corporate Center Drive. The location of the proposed SWM pond falls between two properties, one property is owned by Mr. Mangione and the other property is owned by MAA. MAA had included on its latest environmental document the release of their property to Mr. Mangione in exchange for another property to be used for mitigation purposes. MDOT also needs a piece of Mr. Mangione's property for the construction of Corporate Center Drive. Both MDOT and MAA have been holding meetings with the property owner where the proposed SWM is located for many years and requested that SHA look at a different location for that SWM pond. The team is currently evaluating several options to provide water quality and quantity treatment for the project in the area. After the meeting, the team identified the southeast corner of the Stoney Run Road at New Ridge Road intersection as an adequate location for the SWM pond. Further environmental investigation is being conducted on that site to include it as part of the selected alternative.

Team Recommended Preferred Alternative

Ms. Harris mentioned to the group that the teams recommended Preferred Alternative was Alternative 7. She added that this alternative had the lowest number of environmental impacts overall, would operate at an acceptable LOS and was well received by the agencies. Mr. Pedersen mentioned that the State would like to find funding to build this project and the $7 million difference between Alternative 3A and 7 would be difficult to fund. Mr. Pedersen asked if the decision to select Alternative 7 was reached by full consensus.

Mr. Sifuentes responded that the team was divided between Alternative 3A and 7 but ultimately chose Alternative 7 because of its operational benefits over Alternative 3A. The larger separation between signals for Alternative 7 allows for a larger storage distance. Mr. Sifuentes added that at the Team Recommendation Meeting, District 5 Traffic argued that they preferred Alternative 7 because of this issue. District Traffic felt that traffic coming westbound from Howard County would increase dramatically and this would deteriorate the operation of the compressed diamond interchange proposed under Alternative 3A.

Mr. McClelland mentioned that the reduction of environmental impacts between Alternative 3A and 7 was marginal and might even be the same by the time this project gets to Highway Design. The marginal difference was not worth the $7 million price difference between the two alternatives. Mr. McClelland asked where the proposed development referred to in the "PROS and CONS" sheet was located. Mr. Sifuentes responded that there is proposed development in the southeast quadrant of the interchange. Mr. Pedersen asked if Anne Arundel County can get a dedication of the right-of-way needed for the project. Mr. Cardwell answered that the County can only get a right-of-way dedication if the project is funded for construction, which is the way it is written in their code. Mr. Pedersen asked if the County can ask the developer to dedicate the right-of-way. Mr. Cardwell answered that yes the County can ask the developer. Mr. Veeramachaneni told Mr. Cardwell that SHA would be sending a letter to the County to see if they could modify their code to start getting dedication from developers earlier in the process.

Mr. McClelland mentioned that no Value Engineering (VE) study had been done for the project. Mr. Pedersen asked if there was enough money left in the budget to perform a VE study for the project. Mr. Grey responded that there was enough money left. Mr. Pedersen requested that the team perform a VE study on the project before making a final decision on the selected alternative. The meeting adjourned at 11:30 AM.

Meeting Follow-Up

Following the Administrator's Selection Meeting, the team held a VE study on Monday, August 25, 2008 to Thursday, August 28, 2008. The study was facilitated by Howard Greenfield of Lewis and Zimmerman Associates, Inc. A copy of the VE Summary is attached, which outlines the recommendations from the VE team. The MD 295 study team will address the VE recommendations as follows *(Note: the numbers correspond to the recommendation number on the VE summary attachment)*:

Recommendation # 3: The team decided to not reduce the typical section on the west side of Hanover Road because we had already looked at a minimization option that was very similar to Recommendation #3. Also, in keeping with the spirit of partnering, Howard County was opposed to this recommendation. This project was looked at for phasing possibilities in which this portion of Hanover Road was considered the last to be constructed and funded.

Recommendation # 4: Highway Design agreed to further investigate once the project is transferred.

Recommendation # 7: Highway Design agreed to further investigate once the project is transferred.

Recommendations # 8 and # 9: Travel Forecasting will coordinate with Northrop Grumman to obtain the latest traffic numbers; however, if new numbers are not available, the team has come up with a methodology that would redistribute the traffic.
Follow-Up: Travel Forecasting received the Northrop Grumman traffic report which was actually a follow-up summary to a report they sent to SHA in 2006. In reviewing the report, the travel forecaster realized that the traffic data was already accounted for in the updated traffic analysis. The report showed that the traffic volumes did increase at the Northrop Grumman entrances and at the ramps; however, these increased volumes did not change the LOS analysis for the corridor.

Recommendation # 10: Derek Gunn, will review SIDRA (Signalized & unsignalized Intersection Design and Research Aid) analysis for the proposed roundabout at Hanover Road and the ramp terminal.
Follow-Up: The analysis of the proposed MD 295 roundabouts using SIDRA software and forecast year 2030 volumes has been completed. The results are summarized below.

Hanover Rd at MD 295 SB Ramps (West Roundabout)

The critical movement is the northbound right-turn from the loop ramp. Assuming that this approach can be striped with one right-turn lane, and one shared right/left turn lane, the roundabout is projected to operate acceptably at Level-of-Service (LOS) B during both the AM and PM peak hours. If the approach is striped as one right-turn lane and one left-turn lane, the overall intersection is projected to operate at LOS C, but the northbound approach would operate at LOS F during the AM peak hour.

Hanover Rd at MD 295 NB Ramps (East Roundabout)

Based on the sketch provided, it was assumed that the northbound approach (ramp from MD 295 NB) is only one lane. With this configuration, the intersection is projected to operate at LOS F during both the AM and PM peak hours, due to the heavy northbound right-turn volume. If two lanes can be provided on the northbound approach, with one right-turn lane, and one shared right/left-turn lane (similar to the other roundabout), the intersection is projected to operate acceptably at LOS B during the AM peak hour and at LOS C during the PM peak hour.

Recommendation # 12: The team decided not to move forward with this because the median is an integral part of the typical section of Hanover Road and was presented to the stakeholders and the public as a Gateway to the airport. It also allows for opportunities for landscaping as well.

Recommendation # 14: Highway Design agreed to further investigate once the project is transferred.

Recommendation # 19: Properties along the south side of Hanover Road has been acquired by one developer (Preston Gateway) and no service road will be needed.

Recommendation # 20: The team will not remove sidewalks because Anne Arundel County prefers to keep the sidewalks or at least have the grading for right-of-way purposes.

If you have any questions, please feel free to contact Ms. Carmeletta Harris, Project Manager, at 410-545-8522 or via e-mail at charris@sha.state.md.us.

I concur, that the above description accurately represents the decisions made by the Administrator at the MD 295 Preferred Alternative Meeting. The Project Team should proceed with final project planning with the proposed improvements for the MD 295 Project Planning Study. The SHA Preferred Alternative is Alternative 7 with Hanover Road shifted to the south.

Concurrence:

Gregory I. Slater
Director
Office of Planning and Preliminary Engineering

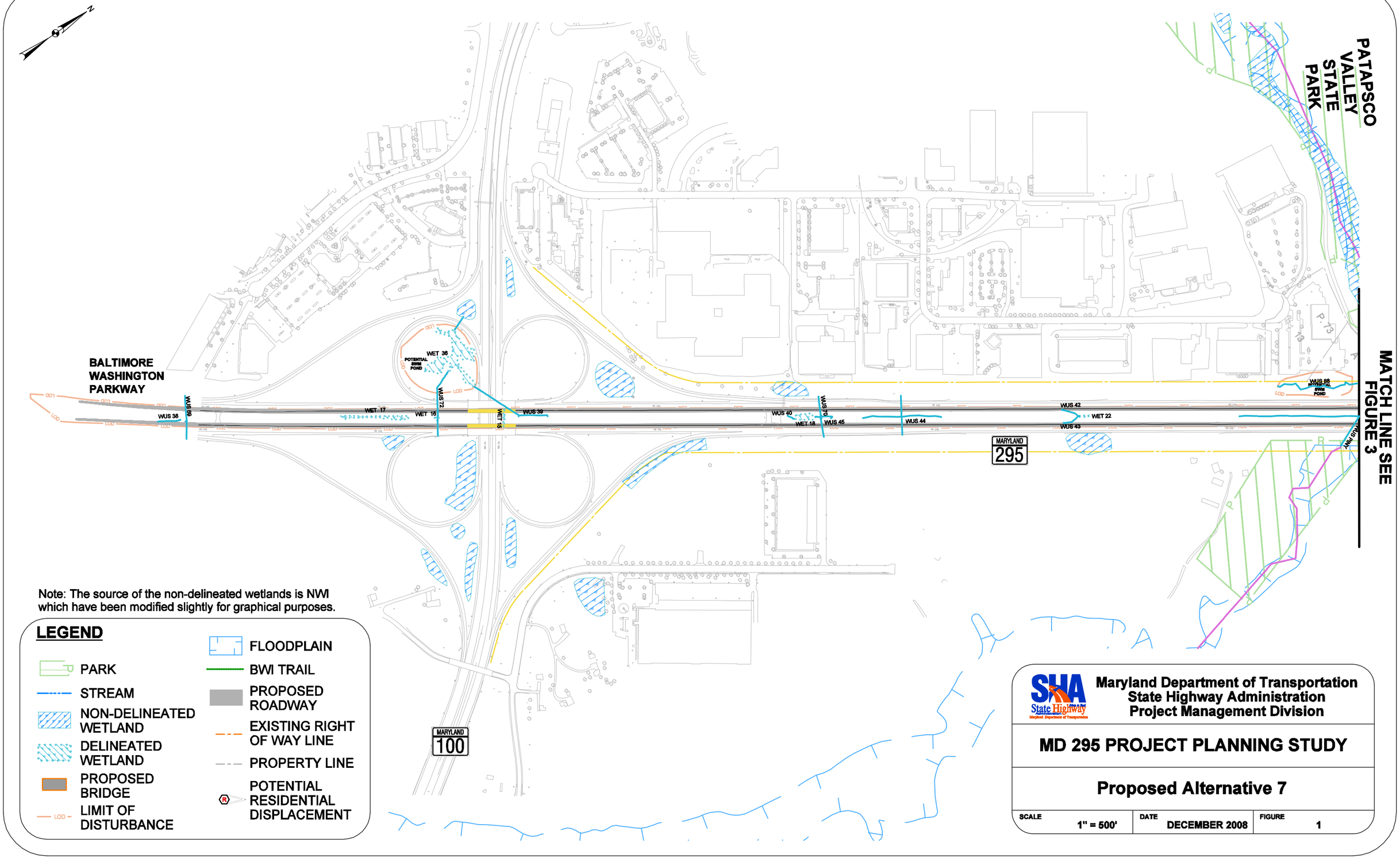
Date 2/11/09

Attachments: Agenda Sheet (1)
Alternative Mapping (1)

cc: Attendees w/ attachments
Project Team list w/attachments
File w/ attachments
Mrs. Nicole Washington, Assistant Division Chief, PMD

Appendix B:
Preferred Alternative Mapping

MD 295 Project Planning Study
Finding of No Significant Impact



Note: The source of the non-delineated wetlands is NWI which have been modified slightly for graphical purposes.

LEGEND

- PARK
- STREAM
- NON-DELINEATED WETLAND
- DELINEATED WETLAND
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- FLOODPLAIN
- BWI TRAIL
- PROPOSED ROADWAY
- EXISTING RIGHT OF WAY LINE
- PROPERTY LINE
- POTENTIAL RESIDENTIAL DISPLACEMENT

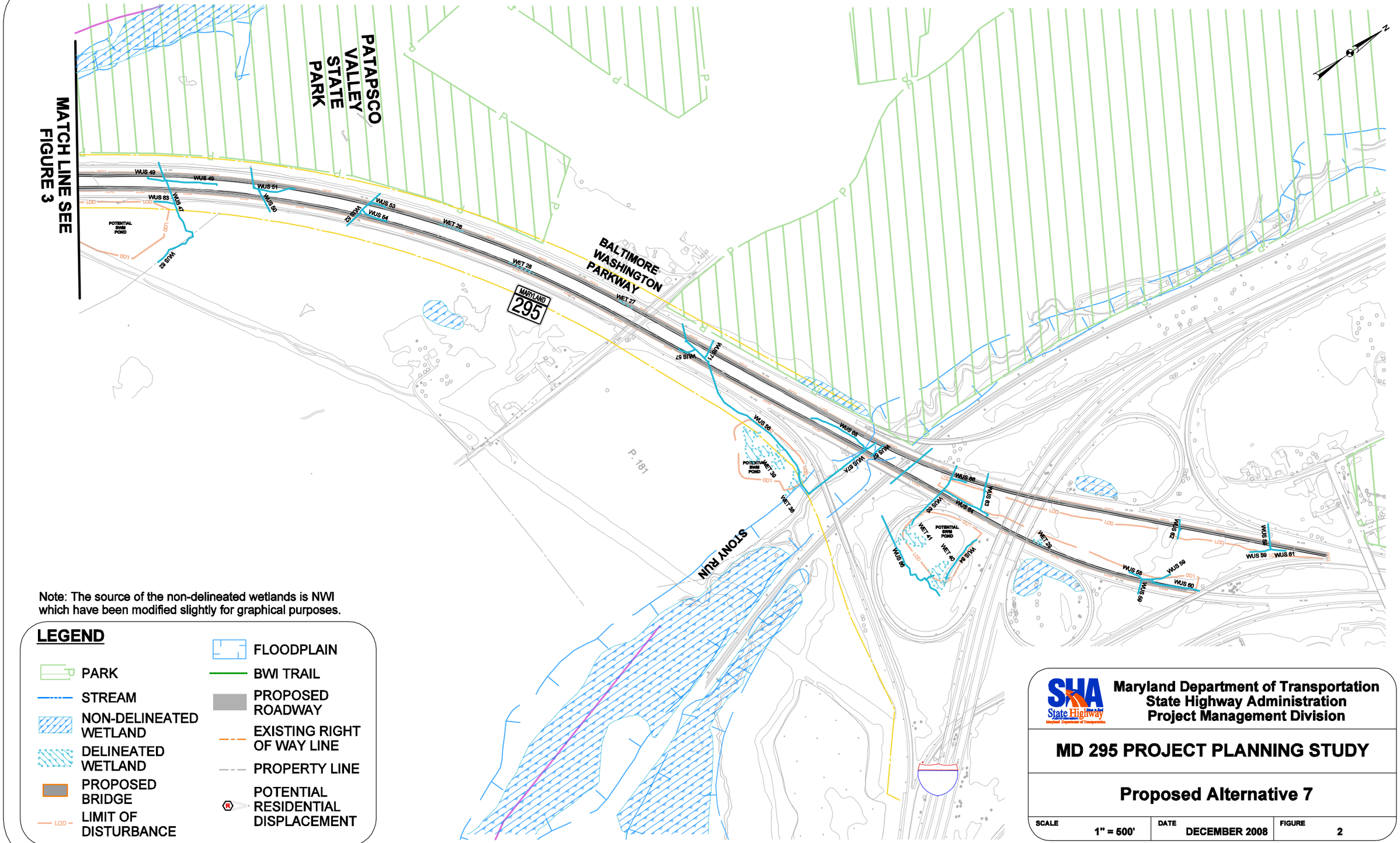
SHA State Highway Administration — Maryland Department of Transportation

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 295 PROJECT PLANNING STUDY

Proposed Alternative 7

SCALE	DATE	FIGURE
1" = 500'	DECEMBER 2008	1



Note: The source of the non-delineated wetlands is NWI which have been modified slightly for graphical purposes.

LEGEND

- PARK
- STREAM
- NON-DELINEATED WETLAND
- DELINEATED WETLAND
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- FLOODPLAIN
- BWI TRAIL
- PROPOSED ROADWAY
- EXISTING RIGHT OF WAY LINE
- PROPERTY LINE
- POTENTIAL RESIDENTIAL DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 295 PROJECT PLANNING STUDY

Proposed Alternative 7

SCALE	DATE	FIGURE
1" = 500'	DECEMBER 2008	2

MATCH LINE SEE FIGURE 2

MARYLAND 295

HOWARD CO.

ANNE ARUNDEL CO.

CSX

RACE RD.

RIDGE RD.

HIGH TECH DR.

DEEP RUN

EXISTING ROADWAY ALIGNMENT

HANOVER RD.

MATCH LINE SEE FIGURE 4

PROPOSED ROADWAY ALIGNMENT

PATAPSCO VALLEY STATE PARK

POTENTIAL SWM POND

BALTIMORE WASHINGTON PARKWAY

PINEY RUN

MATCH LINE SEE FIGURE 1

Note: The source of the non-delineated wetlands is NWI which have been modified slightly for graphical purposes.

LEGEND

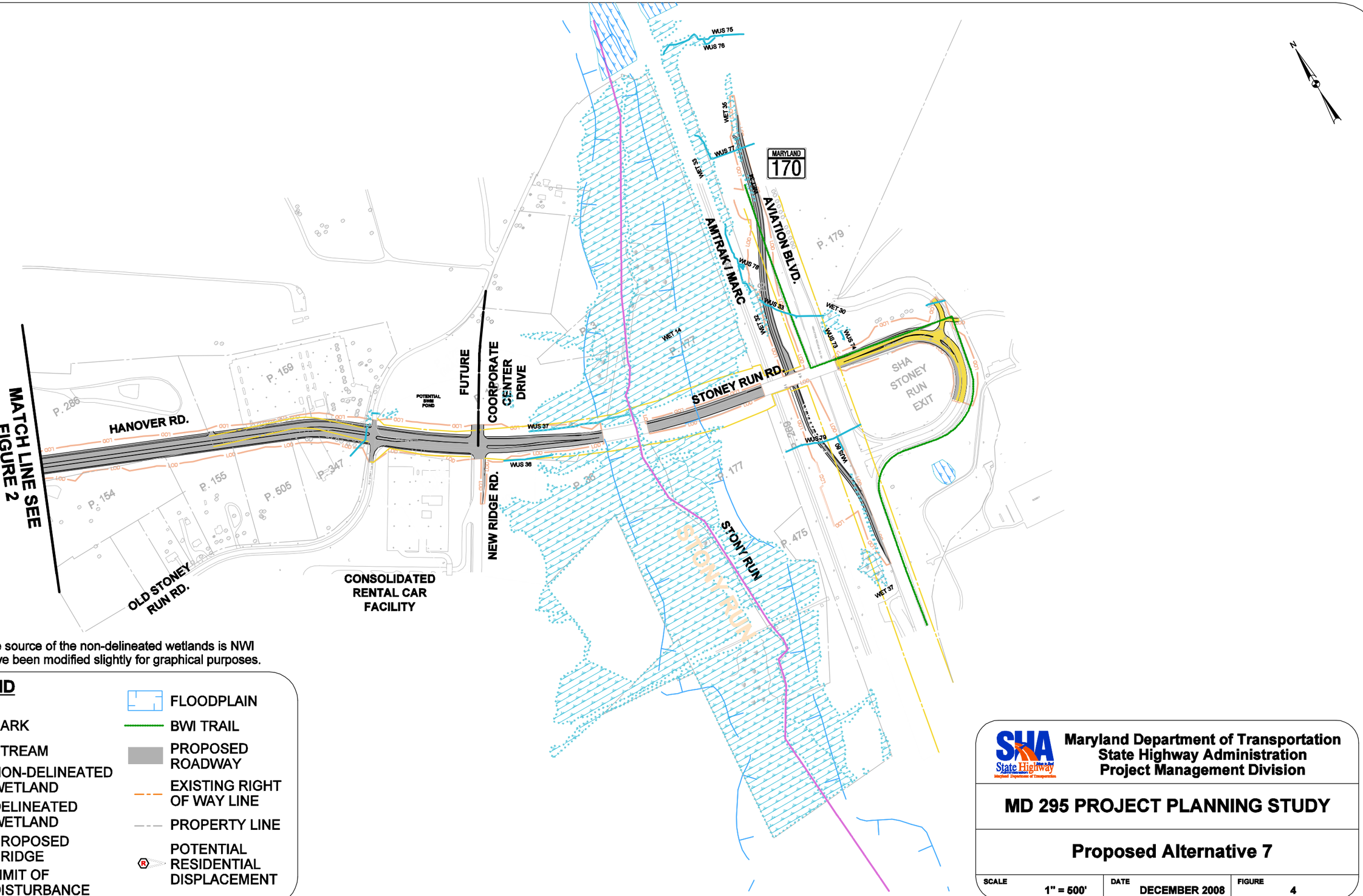
- PARK
- STREAM
- NON-DELINEATED WETLAND
- DELINEATED WETLAND
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- FLOODPLAIN
- BWI TRAIL
- PROPOSED ROADWAY
- EXISTING RIGHT OF WAY LINE
- PROPERTY LINE
- POTENTIAL RESIDENTIAL DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 295 PROJECT PLANNING STUDY

Proposed Alternative 7

SCALE	DATE	FIGURE
1" = 500'	DECEMBER 2008	3



Note: The source of the non-delineated wetlands is NWI which have been modified slightly for graphical purposes.

LEGEND

- PARK
- STREAM
- NON-DELINEATED WETLAND
- DELINEATED WETLAND
- PROPOSED BRIDGE
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Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 295 PROJECT PLANNING STUDY

Proposed Alternative 7

SCALE	DATE	FIGURE
1" = 500'	DECEMBER 2008	4

Appendix C:
Government Agency and Elected Officials Correspondence

MD 295 Project Planning Study
Finding of No Significant Impact

Correspondence from SHA:

Date:	To:	Comment:
1/24/2008	Maryland Historical Trust	Determination of Effect letter
1/25/2008	Maryland Department of Natural Resources	Information regarding bog fern
06/16/2010	Maryland Department of Natural Resources (Maryland Park Service)	Summary of 4/21/10 meeting

Correspondence to SHA:

Date:	From:	
10/29/2007	Anne Arundel County Office of Planning and Zoning	Comments on EA document
12/6/2007	Maryland Department of Planning	State Clearinghouse recommendation
3/18/2008	Maryland Historical Trust	Determination of Effect concurrence
1/21/2010	Maryland Department of Planning	Smart Growth Concurrence
6/9/2010	U.S. Fish and Wildlife Service	RTE Species Information

6515

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

January 24, 2008

Re: Project No. AA372A11
MD 295: MD 100 to I-195 and the
Extension of Hanover Road
Anne Arundel and Howard Counties, MD
USGS *Relay* 7.5' Quadrangle

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Mr. Little:

Introduction and Project Description

This letter serves to inform the Maryland Historical Trust (MHT) of the Maryland State Highway Administration's (SHA) finding that there will be no historic properties affected by the proposed Project No. AA372A11. The project involves widening of MD 295 from MD 100 to I-195, and the upgrading and extension of Hanover Road from High Tech Drive in Howard County to MD 170 (Aviation Boulevard) in Anne Arundel County. This project includes a new interchange at MD 295 and Hanover Road. In addition seven new stormwater management (SWM) pond locations have been identified. Prior correspondence related to this project is dated December 21, 2005 and March 16, 2007.

Since our last correspondence, Alternative 7 has been selected as the Preferred Alternative. Alternative 7 consists of the South Alignment of Hanover Road with Loop and Half-Diamond Interchange at MD 295 (Attachment 1). Under this alternative a loop ramp would be built in the southwestern quadrant of the interchange to allow movement from southbound MD 295. One way directional ramps would be built in the northeast and southeast quadrants to allow movements to and from northbound MD 295. No ramps would be built in the northwestern quadrant of the interchange in order to avoid impacts to parklands, wetlands, and residential areas in that quadrant.

Funding

Federal funds are anticipated for this project.

Area of Potential Effects

The Area of Potential Effects (APE) has been slightly enlarged since in our prior correspondence to incorporate the new ramps described in our correspondence of March 16, 2007, and the seven new SWM pond locations. A revised APE map is provided in Attachment 2.

Identification Methods and Results

Potentially significant architectural and archeological resources were both researched as part of the historic investigation for this project.

Architecture: SHA Architectural Historian Melissa Blair consulted historic maps, county histories, the SHA-GIS Cultural Resources Database, and Maryland Inventory of Historic Properties (MIHP) forms, and conducted field visits on August 3, September 21, and October 21, 2005.

On March 10, 2006, your office concurred that there were no standing structures listed or eligible for the National Register of Historic Places (NRHP) within the APE. Ms. Blair evaluated the newly proposed SWM pond locations and determined that there are no additional standing structures in these areas. Since there are no historic standing structures located within the APE, the project will not impact historic standing structures. No further architectural investigations are recommended.

Archeology: SHA Archeologist Carol A. Ebright assessed the archeological potential of seven newly proposed SWM ponds. SWM Ponds #1, #4, #5, and #7 were all potentially within the limits of Curry's 1978 examination of the MD 295 corridor. SWM pond locations #4 and #5 were also examined by Kinsey (1978). Site 18AN245, destroyed by a variety of construction projects along MD 170, was located in the proposed area of SWM Pond #4. SWM Pond #7, located within the disturbed southwestern loop of the MD 295 and MD 100 interchange is adjacent to the Wilderness Site (18AN596), located immediately south of the loop. Fieldwork currently underway for SHA excess properties has documented that this site extends on both sides of the ramp from eastbound MD 100 onto southbound MD 295. Since SWM #7 is confined to the interior of the loop, impacts to this site can be avoided. SWM Ponds #2, #3, and #6 are all located in areas with high archeological potential, and Phase I archeological survey was recommended by SHA.

The results of a prior Phase I archeological survey for this project (Emory et al. 2007) three sites (18HO33, 18AN400, and 18AN1348) were potentially eligible for NRHP listing, and required Phase II testing. Your office concurred with SHA's recommendations on May 15, 2007.

SHA contracted R. Christopher Goodwin & Associates, Inc. to conduct Phase II evaluations on sites 18HO33, 18AN400, and 18AN1348, as well as supplementary Phase I survey at SWM pond locations #2, #3, and #6. Phase I survey of the SWM pond locations resulted in the identification of one new archeological site--18AN1382, the Harman Tenant Farm Site. SHA determined that this site lacks integrity and research potential and is not considered eligible for NRHP listing. Phase II investigations at 18HO33, 18AN400, and 18AN1348 revealed these three sites also lack integrity and research potential and SHA determined them ineligible for NRHP listing. No further archeological work is recommended for this project. Determination of Eligibility forms for these sites have been emailed to your office.

Enclosed for your review and comment is one copy of the revised draft report ***Additional Phase I Archeological Survey and Phase II Site Evaluations for the MD 295 Improvements, MD 100 to I-95, and Hanover road from High Tech Drive to MD 170, Howard and Anne Arundel Counties, Maryland*** by Kathleen Child et al. of R. Christopher Goodwin & Associates, Inc. (Attachment 3). SHA's comments are attached (Attachment 4).

The attached Eligibility and Effects Table summarizes the status of cultural resources in the APE (Attachment 5).

Review Request

Please examine the attached maps, plans, report, and Eligibility and Effects Table (Attachment 5). We request your concurrence by February 25, 2008 that there would be no historic properties affected by the proposed widening of MD 295 and extension of Hanover Road. By carbon copy, we invite the Anne Arundel and Howard County planning offices to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR 800.2 (c) (4) and (6), and 800.3 (f) for information regarding the identification and participation of consulting parties, and 800.4, and 800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by February 25, 2008, we will assume that these offices decline to participate. Please call Ms Melissa

Blair at 410-545-8560 (or via email at mblair@sha.state.md.us) with questions regarding standing structures for this project. Ms. Carol A. Ebright may be reached at 410-545-2879 (or via email at cebright@sha.state.md.us) with concerns regarding archeology.

Very truly yours,

Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

by: _____
Julie M. Schablitsky
Cultural Resources Team Leader
Project Planning Division

Attachments:
1) Plan Sheets
2) APE Map
3) Phase II Archeological Report
4) SHA Report Comments
5) Eligibility and Effects Table

cc: Ms. Melissa Blair, SHA-PPD (w/Attachment 4)
Ms. Theresa Christian, SHA-PPD (w/Attachment 4)
Ms. Carol A. Ebright, SHA-PPD (w/Attachment 4)
Mr. Bruce M. Grey SHA-OPPE
Ms. Carmeletta Harris, SHA-PPD
Mr. Joseph Kresslein, SHA-PPD (w/Attachment 4)
Dr. Julie M. Schablitsky, SHA-PPD (w/Attachment 4)
Mr. Donald H Sparklin, SHA-PPD (w/Attachment 4)
Ms. Jenna D. Solomon, Anne Arundel County Office of Environmental and Cultural Resources (w/Attachments)
Ms. Zan Klodewey, Howard County Office of Planning and Zoning (w/Attachments)
Mr. Dan Johnson, FHWA

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

Project Number: AA372A11 **MHT Log No._____**
Project Name: MD 295 Hanover
County: Anne Arundel and Howard
Letter Date: January 24, 2008

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [Attachment 5]):

[ ] Concur
[ ] Do Not Concur

Effect (as noted in the Effects Table [Attachment 5]):

[ ] No Properties Affected
[ ] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):

[ ] Agree

Comments:

_____

_____

_____

_____

_____

_____

By: _____ _____
MD State Historic Preservation Office/ Maryland Historical Trust — Date

Return by U.S. Mail or Facsimile to:
Dr. Julie M. Schablitsky, Cultural Resources Team Leader, Project Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5004

Attachment 4

SHA Comments on the Revised Draft Report for MD 295 Ph I and Ph II Archeological Investigations

Reviewed by Carol A. Ebright

1) Please correct the pagination error on the cover and include the current repository list inside the front cover.

2) Figure 14 should illustrate features discussed in the text, e.g. the circular depression, the original road trace, the extent of the burn layer, all features assigned a number, etc. Please make sure all symbols on Fig. 16 appear in the key.

3) We continue to strongly suspect that the wrong item is illustrated Figure 51. The item labeled as a Savannah River point (FS 51) simply does not appear to projectile point, nor do its proportional measurements appear to conform to what is listed in Table 22. In some places the Savannah River point is listed as "quartz" and in others it is still listed as "quartzite." Please verify if there is more than one Savannah River point from this site. If so, please illustrate the correct item. Please make sure all the information about the diagnostic artifacts from 18HO33 is correct and consistent in the text, tables, illustrations, and catalog.

4) Please use the spelling and grammar checking functions in your software to locate typographic errors throughout the report. Please use Dr. Daniel P. Wagner's full name on p. 4.

5) Although the revised draft has been edited and much repeated data and text removed, there is still a fair amount of duplicate text. Although not required, report would benefit additional editing to eliminate unnecessary repeated text.

Eligibility/Status Table

Attachment 5

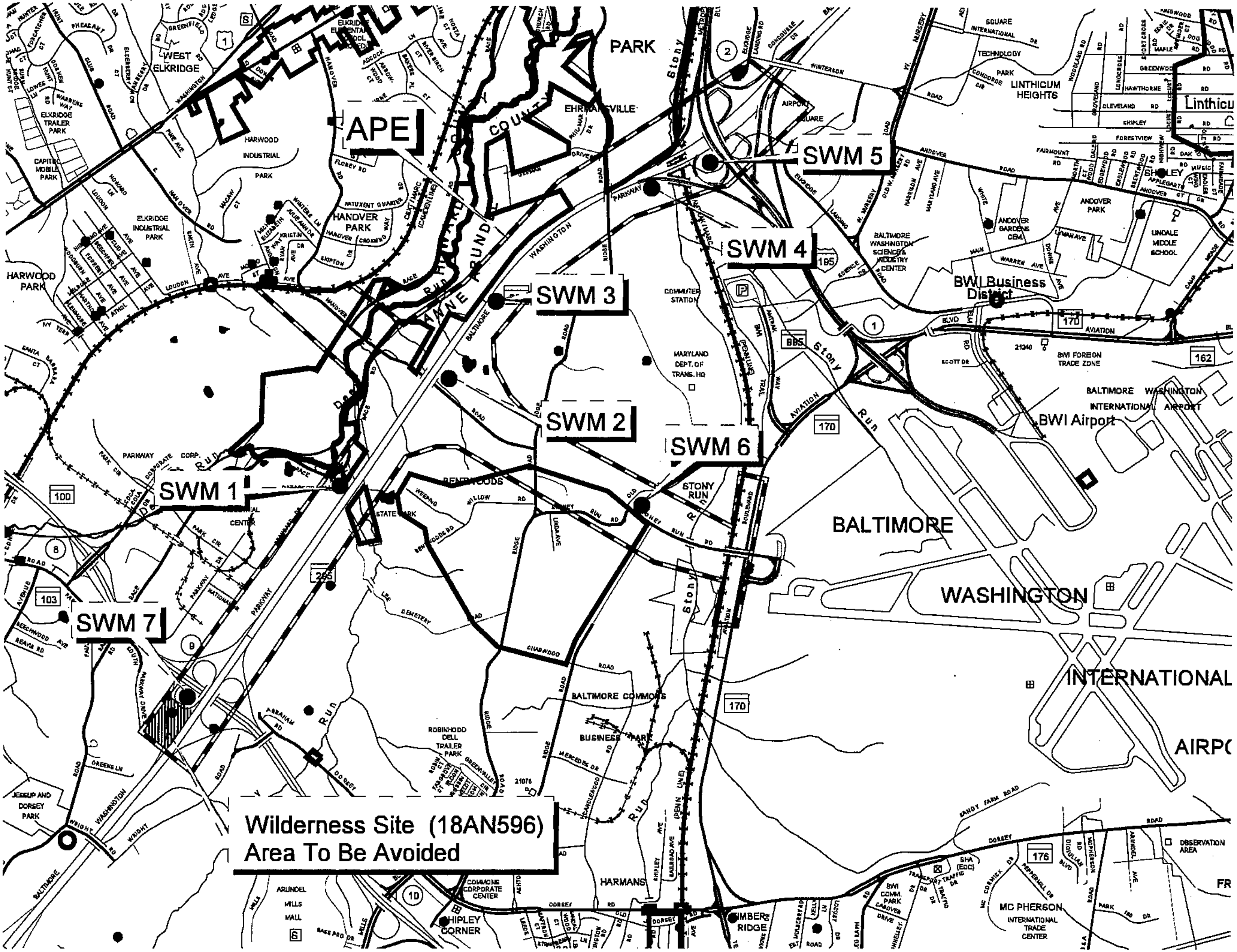
Project Name: MD 295: MD 100 to I-195 and Hanover Road

January 10, 2008

Resource	Type	SHA NR Determination	SHPO Opinion	Impact	SHPO Concur	Attachment	Remarks
Charles A. Brauer House (AA-870)	S	X	X 3/10/2006				Demolished
6964 Ridge Road	S	X	X 3/10/2006				
7135 Race Road	S	X	X 3/10/2006				
6070 Dorsey Road	S	X	X 3/10/2006				
6559 Hanover Road	S	X	X 3/10/2006				
1392 Hanover Road	S	X	X 3/10/2006				
1384 Hanover Road	S	X	X 3/10/2006				
1349 Hanover Road	S	X	X 3/10/2006				
1336 Hanover Road	S	X	X 3/10/2006				
1333 Hanover Road	S	X	X 3/10/2006				
1328 Hanover Road	S	X	X 3/10/2006				
7151 Rock Realty Drive	S	X	X 3/10/2006				
1300 Hanover Road	S	X	X 3/10/2006				
7197 Ridge Road	S	X	X 3/10/2006				
1272 Stoney Run Road	S	X	X 3/10/2006				
1250 Stoney Run Road	S	X	X 3/10/2006				
Structure No. 0202100	S	X	X 3/10/2006				
Bridge No. 0202001	S	X	X 3/10/2006				
Bridge No. 0202002	S	X	X 3/10/2006				
Bridge No. 0201900	S	X	X 3/10/2006				
18AN245 Pine Spring	A	X	X 5/15/2007				Destroyed.
18AN367 Harmans North	A	X	X 5/15/2007				Destroyed
18AN400 Intersection	**A**	**X**	**Requested 1/2008**			**3**	**Phase 2 completed.**

18AN516 Jones	A	ND					1980 pipeline survey by Garrow recommended as not eligible this collector-reported, but not field-verified, site. Outside of LOD.
18AN583 Weeping Willow	A	X	X 2/6/2007				
18AN596 Wilderness	A	NR	Pre-1992	None			Site preserved within MD 295/ MD 100 interchange. Ph I/II currently being undertaken by SHA for previously unrecorded section of this site located in a parcel of excess property west of known site area. Can be avoided by current project.
18AN1200 Elliott-Cole	A	X	X 8/20/2001				
18AN1345 Preston Gateway North B-1	A	X	X 2/2/07				
18AN1347 Dyson Farmstead	A	X	X 5/15/07				
18AN1348 Hanover Road	A	X	**Requested 1/2008**			**3**	**Phase 2 completed**
18AN1352 Dyson Prehistoric	A	X	X 5/15/07				
18AN1353 Uibel Residence	A	X	X 5/15/07				
18AN1382 Harman Tenant Farm	A	X	**Requested 1/2008**			**3**	**Phase I completed**
18HO33 Stearns #5	A	X	**Requested 1/2008**			**3**	**Phase 2 completed**
18HO204 Schultz Farm 2	A	X	X 5/5/1993				
Effect		**NPA**	**Requested 1/2008**				

Codes: Resource Types: S (Structure), A (Archeological Site), HD (Historic District), NHL (National Historic Landmark)
NR Determination: ND (Not Determined), X (Not Eligible), NR (Eligible), NRL (Listed), NHL (Landmark)
SHPO Opinion: (B) designates opinion regarding boundary, Code following date signifies SHPO opinion
Bold rows indicate review action requested


APE
SWM 1
SWM 2
SWM 3
SWM 4
SWM 5
SWM 6
SWM 7
Wilderness Site (18AN596)
Area To Be Avoided
BALTIMORE
WASHINGTON
INTERNATIONAL
BWI Airport
BWI Business District
LINTHICUM HEIGHTS
PARK
HARWOOD INDUSTRIAL PARK
HANOVER PARK
ELKRIDGE INDUSTRIAL PARK
WEST ELKRIDGE
HARWOOD PARK
BALTIMORE COMMONS
BUSINESS PARK
MARYLAND DEPT. OF TRANS. HQ
HARMANS
MC PHERSON

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

January 25, 2008

Re: Project No. AA372A11
MD 295: from MD 100 to I-195 and,
Hanover Road: from High Tech Drive, Howard County to MD 170
Anne Arundel County, MD

Ms. Katharine McCarthy
Maryland Department of Natural Resources
Natural Heritage Program, Wildlife and Heritage Service
Tawes State Office Building
580 Taylor Avenue
Annapolis, MD 21401

Dear Ms. McCarthy:

Thank you for your letter dated July 9, 2007 regarding the MD 295 Project Planning Study. This letter is in response to your request to have the bog fern within the proposed limits of disturbance (LOD) flagged and then formally surveyed.

The Maryland State Highway Administration (SHA) is committed to working with the Maryland Department of Natural Resources (DNR) and other resource agencies, in designing an alignment which minimizes adverse impacts to rare, threatened and endangered species and other resources. In this effort, SHA has adjusted the alignments to the extent possible to avoid and minimize impacts to the bog fern populations off Stoney Run Road as well as the Wetland of Special State Concern (WSSC) bordering Stony Run as mentioned by your recommendation No.1. Both the horizontal and vertical alignments for Stoney Run Road have been designed to minimize additional widening along Hanover Road as well as to minimize the extent of any grading that could impact the WSSC. Furthermore, SHA will continue working with DNR to implement the other recommendations to stabilize the soil and to use bioretention to manage stormwater runoff in an effort to maintain the water quality and hydrology in the bog fern's wetland habitat.

Botanical surveys for the bog fern were conducted by Ms. Barbara Sulon, a botanist with A.D. Marble & Company (SHA Consultant). The limits of the plant survey were determined from the footprint of Alternatives 3, 4, 7, and 8, and the proposed mainline widening north and south of Hanover Road. A plant survey boundary was developed by looking at the worst-case LOD and determining a reasonable area in which direct or indirect impacts could occur. The botanist conducted the survey work by walking the area within the plant survey boundary and

visually surveying for bog fern populations. Five bog fern populations near the LOD were identified and flagged. None were identified within the LOD. Information regarding general condition, aerial extent, and numbers of plants were recorded on plant data sheets in accordance with DNR's protocol (Attachment 1).

Each survey flag was numbered and located by an SHA surveyor using conventional surveying methods (linear and angular measurement survey). The surveyed flags, represented by points, were connected to form polygons. The polygons represent the aerial extent of each bog fern population. The populations on the north side of MD 295 are identified as TS1, TS2, and TS3. TS1 is delineated by flags TS1-1 through TS1-7. TS2 is delineated by flags TS2-1 through TS2-4. TS3 is delineated by flags TS3-1 through TS3-3. The populations on the south side of MD 295 are identified as TS4 and TS5. TS4 is delineated by flags TS4-1 through TS4-3. TS5 is delineated by flags TS5-1 through TS5-4.

The bog fern populations were then mapped relative to the worst-case proposed LOD (Attachment 2). The proposed widening of Stoney Run Road would not result in a direct take of the bog fern as it is currently designed. The closest bog fern population (TS1) is approximately 53 feet from the proposed LOD (Attachment 3(c)).

In order to avoid unintentional impacts to the bog fern during construction, the bog fern populations will be identified and fenced. Sediment and erosion control procedures to control both coarse and fine sediment will also be implemented during construction. Stormwater runoff will be disconnected from direct discharge into waterways by using sheet flow through vegetation and grass channels that improve water quality and promote infiltration. Redundancy of controls will be included at the bog fern locations to minimize potential control failures that could deliver sediment-laden runoff to these sensitive resources. Other examples may include placing two rows of silt fence to stabilize an area or one row of silt fence and a sediment trap.

You also requested additional information regarding the project's impacts on the WSSC within the study area. The WSSC is a large palustrine wetland complex associated with Stony Run, west of the AMTRAK/MARC railroad tracks near Aviation Boulevard (MD 170). Proposed impacts to the WSSC would be due to improvements to the Stoney Run Road/New Ridge Road intersection as well as the widening of Stoney Run Road to provide a hiker biker trail on the north side. Approximately 0.109 acre of the WSSC within the study area would be impacted with the proposed project improvements. These impacts cannot be minimized any further due to the additional improvements being proposed along Stoney Run Road as well as the location of the WSSC along both sides of roadway.

We hope that this letter addresses your concerns. We will continue our coordination throughout the development of this project and welcome any input you may have. Should you have any questions or need additional information, please feel free to contact Ms. Theresa Christian, the Environmental Manager, at 410-545-8697; or Ms. Carmeletta Harris, Project Manager, at 410-545-8522 (toll free at 800-548-5026).

Very truly yours,

Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

by Joseph R. Kresslein

Joseph R. Kresslein
Assistant Division Chief
Project Planning Division

cc: Mr. Dennis Atkins, SHA-PPD
Ms. Theresa Christian, SHA-PPD (w/attachments)
Mr. Bruce Grey, SHA-PPD
Ms. Carmeletta Harris, SHA-PPD
Mr. Joseph Kresslein, SHA-PPD

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration

Beverley K. Swaim-Staley, *Secretary*
Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

June 16, 2010

Re: Project No. AA372B11
MD 295 Project Planning Study
From MD 100 to I-195 and
Hanover Road from High Tech Drive to MD 170
Anne Arundel and Howard Counties, Maryland

Mr. Arnold Norden
Central Region Planning
Department of Natural Resources
Resource Planning Program
Tawes State Office Building, E-4
580 Taylor Ave
Annapolis, Maryland 21401

Dear Mr. Norden:

On April 21, 2010 a meeting was held to discuss the project scope, impacts and mitigation for the MD 295 Project Planning Study in Anne Arundel and Howard Counties (**Attachment 1**). This letter will serve to confirm the coordination and understanding of the project plans between the Maryland State Highway Administration (SHA) and the Maryland Department of Natural Resources (DNR). As you know the Patapsco Valley State Park (PVSP) is a protected resource under Section 4(f) of the US Department of Transportation Act of 1966. This letter will support the environmental document, a Finding of No Significant Impact (FONSI) with a *de minimis* finding for PVSP impacts, currently being prepared for this project. DNR's concurrence signature is requested on the last page of this letter indicating your agreement with the statements made within.

The purpose of the project is to improve the existing capacity, traffic operations, and safety of MD 295, and to enhance Hanover Road as a secondary access to the Baltimore-Washington International/Thurgood Marshall Airport (BWI) and surrounding areas. Several options and alternatives were considered as part of the Project Planning Study. These improvements along with the No-Build Alternative were presented at a Location Design Public Hearing in 2007. Descriptions of all of the alternatives and options that were developed and carried forward for detailed study are included in SHA's Preferred Alternative and Conceptual Mitigation Package (PACM) (**Attachment 2**). Alternative 7 which involves widening MD 295 and a new interchange at MD 295/Hanover Road was chosen as SHA's preferred alternative (**Attachment 3**).

As part of the Section 4(f) process, the project team analyzed park avoidance and minimization options for this project. Other than the No-Build Alternative, two park avoidance options were considered. One park avoidance option would route traffic through the MD 100 interchange instead of widening Hanover Road through PVSP. The other avoidance option included the construction of a new interchange, with improvements to Hanover Road being restricted to the area east of the park boundaries.

Although these avoidance options are feasible, they are not prudent because they would not fully address the purpose and need for the project. They would not provide capacity in support of anticipated increases in residential and commercial traffic in Howard and Anne Arundel Counties, an element of the purpose and need. Both Howard and Anne Arundel Counties would like Hanover Road improved to four lanes to serve as a secondary emergency roadway and to provide a secondary access to BWI. Moreover, based on the existing level of congestion and near-failing conditions at the MD 100/MD 295 interchange, it is projected that the unimproved western portion of Hanover Road would continue to carry the majority of local traffic seeking access to the new interchange.

In addition to not fully addressing the purpose and need, the avoidance options would not correct the existing substandard deficiencies on Hanover Road that include flooding during heavy rains and the lack of sidewalks. The lack of sidewalks is inconsistent with the Americans with Disabilities Act (ADA) standards in terms of logical connections. Furthermore, the avoidance options would not provide a trail connection between the BWI Trail, the surrounding area, and PVSP.

A minimization option would involve reducing the typical section of Hanover Road to two bicycle compatible lanes without a median, a ten foot hiker biker trail on the north side, and a five foot sidewalk on the south side. While this minimization option would correct the existing substandard deficiencies on Hanover Road, it would not provide the four lanes that both Howard and Anne Arundel Counties' desire. Furthermore, reduction of the typical section would require Hanover Road to be closed for long periods of time during construction, whereas the preferred alternative would not require closure. Long periods of complete closure would be undesirable because Hanover Road is used by Anne Arundel and Howard County emergency service providers.

The alternative chosen (Alternative 7) also has the lowest number of wetland impacts, stream impacts, potential residential displacements and woodland impacts (see impact matrix on page 16 of **Attachment 2**). SHA anticipates 2.85 acres fee simple acquisition from the PVSP along Deep Run. A bike trail is proposed for Hanover Road and will tie in with the existing BWI Trail at the intersection of MD 170 and Stoney Run Road which will require a 0.15 acre temporary easement of a County-owned portion of the BWI Trail. Impacts to the PVSP as a result of the proposed bike trail would be minimized by designing a portion of the trail through the PVSP and incorporating the existing topographic features wherever possible.

Mr. Arnold Norden has requested that park impacts be mitigated through a replacement parcel of equal quality and quantity to be determined by DNR. This parcel has not been determined at this time. Mr. Norden indicated that DNR will be responsible for locating an appropriate parcel for mitigation. Total anticipated forest impacts within PVSP are 2.73 acres.

The Federal Highway Administration (FHWA) has established three main criteria to determine whether a project will have a *de minimis* impact on Section 4(f) resources. SHA plans to seek FHWA's concurrence on a *de minimis* finding for the proposed impacts to PVSP. SHA has determined that the proposed impacts meet the *de minimis* criteria for the following reasons:

1. The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).

   The proposed improvements would use undeveloped portions of the park which provide very limited passive recreational uses, natural habitat and watershed benefits. There are no active recreational uses in the portion of the park that would be impacted by the project. The park impacts represent approximately 0.02 percent of the total acreage of PVSP.

2. The official(s) with jurisdiction over the property are informed of FHWA's intent to make the de minimis impact finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

   *In a letter to DNR, dated May 29, 2007, SHA discussed their intent to pursue the de minimis impact finding and requested DNR's agreement (as officials with jurisdiction over the PVSP), that the proposed impacts would not adversely affect the activities, features and attributes of the park (**Attachment 4**). SHA received a written response from DNR, dated July 10, 2007, in which DNR expressed support for the project along with concerns regarding bicycle safety and accessibility and avoidance and minimization alternatives (**Attachment 5**). SHA addressed DNR's comments and concerns in a response letter dated August 27, 2007 (**Attachment 6**).*

3. The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features and attributes of the Section 4(f) resource.

   The public was offered the opportunity to review and comment on SHA's intention to pursue a de minimis impact finding at the Public Hearing on September 25, 2007.

It is SHA's intention to mitigate impacts to the park and we look forward to working closely with you to identify suitable mitigation and enhancement opportunities during the project design process. If you agree with our finding of *de minimis* impacts to the PVSP as a result of the proposed MD 295/Hanover Road project, please indicate your concurrence on the signature line below. Your concurrence will also indicate you agree with the project's purpose and need and impacts, including the avoidance, minimization and mitigation strategies we plan to employ. Should you have any questions or need additional information, please feel free to contact Ms. Jessica Silwick, Environmental Manager, at 410-545-8509; or Ms. Carmeletta Harris, Project Manager, at (410) 545-8522 (toll free at 800-548-5026).

Very truly yours,

Donna Bucci, for

Dennis M. Atkins
Assistant Division Chief
Environmental Planning Division

Concurrence:

Arnold Norden

Maryland Department of Natural Resources
Central Region Planning Chief

7-8-10

Date

Attachment
cc: Ms. Jessica Silwick, Environmental Manager, SHA-EPLD
Ms. Carmeletta Harris, Project Manager, SHA-PMD
Mr. Thomas Hinchliffe, SHA-ORE

ANNE ARUNDEL COUNTY
MARYLAND

Office of Planning and Zoning
P.O. Box 6675
2664 Riva Road
Annapolis, Maryland 21401

October 29, 2007

Mr. Raja Veeramachaneni, Director
Office of Planning and Preliminary Engineering Mail stop C-301
Maryland State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

RE: Environmental Assessment, MD 295 Project Planning Study, MD 100 to I-195 and Hanover Road from High Tech Drive to Aviation Boulevard (MD 170) AA372A11

Dear Mr. Veeramachaneni:

Thank you for the opportunity to review the Environmental Assessment for the Project Planning Study of MD 295 from MD 100 to I-195 and Hanover Road from High Tech Drive to Aviation Boulevard (MD 170) in Anne Arundel and Howard Counties. The County Executive has asked me to respond to your request for comments. The following letter has been compiled through the efforts of various staff offices within the County.

Let me first indicate the County's continued desire to see this project advance through the planning and design phases into actual construction of the various components. We believe that the No Build condition will be unacceptable as a means of meeting the increasing travel demand, of improving accessibility to the Baltimore Washington International/Thurgood Marshall Airport, and of adding capacity and redundancy to the area's highway network for both people and goods movement.

The proposed project creates more accessibility to BWI which is increasing its enplanements and is a major origin/destination airport in the Mid-Atlantic Region. Increasing its accessibility to the Washington-Northern Virginia market is important to fulfill the airport's promise of "easy come/easy go" and to retain regional competitiveness. With the growing development of commercial office and industrial/warehousing space in the area, Hanover Road with its interchange to the Baltimore Washington Parkway is extremely important to improve the flow of goods and services to support the Baltimore Region's economy and the impending Base

Realignment and Closure Recommendations impacting both Fort George G. Meade and Aberdeen Proving Grounds. Further, by adding the interchange, increasing the number of lanes on MD 295 to meet the existing and forecast travel demand and extending Hanover Road as a four-lane divided arterial roadway, this improvement will better balance the existing and forecast travel demand among the three interchanges including MD 295 at MD 100 and MD 295 at I-195, the proposed action will extend the design life of those two interchanges and reduce the potential for vehicular crashes. Finally, by including the multi-purpose trail along the north side of Hanover Road, this proposed action will increase the trails network in the region connecting the BWI Trail to the Patapsco Valley State Park and other trails as well.

Anne Arundel County supports the proposed action as it is consistent with the County's adopted *BWI/Linthicum Small Area Plan* (November 2003) and the County's adopted *General Development Plan* (1997). The Small Area Plan recommended the interchange of Hanover Road with the Baltimore Washington Parkway (MD 295) and the extension of Hanover Road from Howard County to Aviation Boulevard (MD 170), as a minor arterial. The location of the multi-purpose trail within the alignment of Hanover Road is recommended in the County's adopted Pedestrian/Bicycle Master Plan (2003).

Upon the completion of the review for the study by the County staff, we offer the following comments in support of improving the document so that the information provided will assist decision makers in recommending an alternative that meets the project's purpose and need and provides the best service for the cost and impacts associated with that choice. To that end, we offer the following comments regarding the EA document, dated September 2007:

1. Within Anne Arundel County, we recommend that the roadway typical section be composed of a four-lane divided arterial facility that is designed to safely accommodate anticipated travel demand for vehicles including heavy truck traffic based on the adjacent land use characteristics which include distribution and warehousing activities. The typical section must include an adjacent parallel hiker/biker trail of sufficient width to allow for its safe use by bicyclists and pedestrians. Even if a sidewalk is not provided on the opposite side of the roadway appropriate off-sets from the edge of the travel way and grading to support the sidewalk's placement should be part of the design of the roadway and included in the right-of-way for the proposed project. With the provision of an off-road trail, the County is not concerned about the location of on-road bicycling on off-sets from the edge of the travel way. To reduce the foot print impact of the roadway, the County is willing to forego this feature in the right-of-way.

2. The County recommends that access management be included as part of the design of the roadway and that maintaining larger parcels be considered as part of the final design of the alignment. Retaining larger parcels permits better master planning of the use on, and access to, the parcel. Access control will be a means of reducing the right-of-way foot print and to help manage the anticipated travel demand along Hanover Road which will occur because of its connection of MD 295 with BWI.

3. The EA needs to demonstrate that the proposed access to the Northrop Grumman site on Stoney Run Road can be accommodated with the increase in travel demand resulting from Hanover Road's connection to MD 295 via the proposed interchange.

4. Although not actually an EA issue, final design of Hanover Road and its interchange with MD 295 offers the opportunity for gateway style features. The Baltimore Washington Parkway is identified as a scenic road. Hanover Road will be one of the first and last impressions of both the State of Maryland and Anne Arundel County made on the travelling public whose trips are generated by BWI. Because of this issue facts, we recommend that the design of the interchange, sound walls, retaining walls, street lighting, signage and other appurtenances necessary in the development and operation of the corridor reflect a consistent and compatible theme.

5. While the County does not offer specific guidance regarding the selection of a preferred alternative of the MD 295/Hanover Road interchange, we do feel that the best interchange option will be the one that offers the best level of service for travel demand to and from BWI. That level of service improvement must not be at the expense of impacts to wetlands and parklands located around the proposed interchange location.

6. Further, the design of the interchange must allow for the continual maintenance of traffic so that first responders are not faced with circuitous routing along or around Hanover Road. Both Howard and Anne Arundel Counties have mutual aid agreements for emergency services along with BWI's emergency services.

7. Since the initiation of the EA document, there have been proposed changes in land use within the study area. These changes may both increase the demographic assumptions used to generate the travel demand forecasts and may also change trip productions and attractions in the area. As this project moves forward to design and construction, we recommend that the travel demand forecast be revisited with the most recent information available.

8. While not an EA issue, specifically, we recommend that the question of ownership of the improved Hanover Road-Stoney Run Rd alignment and structures should be resolved prior to initiation of final design.

9. Finally, we recommend that the access to existing Hanover Road in Howard County from the realigned Hanover Road be designed to safely discourage through travel from the interchange at MD 295 into the Elkridge community.

We thank you for the opportunity to review the EA document and hope these comments are helpful in assisting your team's effort in developing the Finding of No Significant Impact. Should there be any additional questions regarding the comments, please contact George Cardwell, the Planning Administrator of Transportation Planning at the Office of Planning and Zoning, at (410) 222-7432, or via email at pzcard44@aacounty.org

Sincerely,

Larry R. Tom
Planning and Zoning Officer

cc: Erik Robey, Deputy Chief Administrative Officer
Ronald Bowen, Director, DPW
Carole Sanner, Assistant Planning and Zoning Officer
Ginger Ellis, DPW
George Cardwell, OPZ

Maryland Department of Planning

Martin O'Malley
Governor
Anthony G. Brown
Lt. Governor

Richard Eberhart Hall
Secretary
Matthew J. Power
Deputy Secretary

December 6, 2007

Mr. Bruce M. Grey
Deputy Director, Office of Planning and Preliminary Engineering
State Highway Administration
707 N. Calvert Street
Mailstop C-301
Baltimore, MD 21202

STATE CLEARINGHOUSE RECOMMENDATION

State Application Identifier: MD20071005-1030
Applicant: State Highway Administration (SHA) and A.D. Marble & Company
Project Description: Environmental Assessment and EAF: MD 295 Project Planning Study: MD 100 to I-95 and Hanover Road from High Tech Drive to MD 170 (Aviation Boulevard): real property held by Maryland Aviation Administration required for this project: from 12 to 16 acres
Project Location: Anne Arundel and Howard Counties
Approving Authority: U.S. Department of Transportation
Recommendation: **Consistent with Qualifying Comments and Contingent Upon Certain Actions**

Dear Mr. Grey:

In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 14.24.04, the State Clearinghouse has coordinated the intergovernmental review of the referenced project. This letter constitutes the State process review and recommendation based upon comments received to date. This recommendation is valid for a period of three years from the date of this letter.

Review comments were requested from the Maryland Departments of Health & Mental Hygiene, the Environment, Public Safety and Correctional Services, Natural Resources, Housing and Community Development, Budget & Management, General Services, the Maryland State Department of Education, Howard, and Anne Arundel Counties, the Baltimore Metropolitan Council, and the Maryland Department of Planning, including the Maryland Historical Trust. As of this date, Anne Arundel County has not submitted comments. **This recommendation is contingent upon the applicant considering and addressing any problems or conditions that may be identified by their review. Any comments received will be forwarded.**

The Maryland Department of the Environment, and the Maryland Historical Trust statec. that their findings of consistency are contingent upon the Applicant taking the actions summarized below.

The Maryland Departments of the Environment stated that:

1. The project must undergo an analysis for transportation conformity, and be in a conforming Transportation Improvement Program (TIP).

2. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3318 for additional information.

The Maryland Historical Trust (the Trust) affirmed that the Trust's "approval of the project was contingent upon the successful completion of the Section 106 process."

The Maryland Department of Natural Resources (DNR), and Howard County found this project to be generally consistent with their plans, programs, and objectives, but included these qualifying comments. "DNR staff continue to participate in monthly Interagency Meetings and have reviewed all past documentation on the project. DNR has concurred on the (components of the) project (that involves) Purpose & Need and Alternatives Retained for Detailed Study. DNR will continue to coordinate with SHA (until) the conclusion of this project."

Howard County communicated the following questions and concerns about the project.

"Alternatives 3, 3A, 4, 4A, 7 and 8 of Project No. MD 20071005-1030 (Environmental Assessment 295 Project Planning Study) are at odds with approved subdivision plan, SDP-07-028, Patapsco Valley Business Center, Parcel C. As included in Alternatives 3, 3A, 4, 4A, 7 and 8, the alignment of relocated Hanover Rd. is outside the existing right of way of Hanover Rd. and a portion of the dedicated right of way from Patapsco Valley Business Center. See the attached aerial photograph. Also the limit of the disturbance line for the relocated Hanover Rd. is inside the approved subdivision setback line. The alignment of relocated Hanover Rd. may therefore cause a taking of commercial property, but this impact is not documented in the environmental assessment.
Alternatives 3, 3A, 4, 4A, 7 and 8 should address these property and right of way impacts.

The impact of potential increases in traffic from commercial and non-commercial vehicles on Hanover Rd. through Elkridge is not included in the environmental assessment. Traffic forecasting on relocated Hanover Rd. through Elkridge should be included and discussed as part of the impact analysis for Alternatives 3, 3A, 4, 4A, 7 and 8.

It is recommended that anticipated traffic control devices be identified for the intersection of Hi Tech Dr. and relocated Hanover Rd. The environmental assessment should also include future Level of Service Analysis at the relocated Hanover Rd./ Hi Tech Dr. intersection. Potential traffic control devices at this intersection should be included in Alternatives 3, 3A, 4, 4A, 7 and 8.

On 11/06/07, Howard County Department of Planning and Zoning's (DPZ) Transportation Division meet with SHA regarding the alignment of relocated Hanover Rd for the MD 295/Hanover Rd project. At the joint location/design hearing on 9/25/2007 SHA presented an alignment for relocated Hanover Rd that negatively impacted the Patapsco Valley Business Center, Parcel C. At the 11/06/07 meeting SHA proposed another re-alignment for Hanover Rd that does not impact the Patapsco Valley Business Center, but still maintains the T intersection with Hi Tech Dr. In discussing the second alterative SHA explained that they truncated the realignment before Hanover Rd crossed the CSX railroad tracks so that the design did not incorporate a railroad crossing that was askew and would not meet SHA design guidelines.

Another issue regarding relocated Hanover Rd relates to the recommended MD 295/Hanover Rd project cross section. It is recommended in all of the SHA project alternatives that Hanover Rd west of MD 295 be rebuilt as four lanes with a median, a hiker/biker trail on the north side and a five foot sidewalk on the south side. In reviewing the "minimization" alternative for relocated Hanover DPZ requested that the second alignment include a continuation of the hiker/ biker trail on the north side of relocated Hanover Rd from the intersection of Hi Tech Dr/relocated Hanover Rd. The Jacobs engineering representative said that it appeared feasible, and the SHA representative agreed to the idea. DPZ believes that in the future Howard County can complete the hiker/biker trail across the railroad tracks and connect it to any existing or future sidewalk on Hanover Rd.

There will be an SHA Team meeting on 11/14/07 to recommend a preferred alternative to the SHA Planning Director and Administrator. At that meeting DPZ is expected to confirm its recommendation for:

1. the "minimization" alternative for relocated Hanover Rd including the hiker/biker trail on the north side.
2. the proposed Hanover Rd cross section of four lanes and a median west of MD 295.
3. keeping Hanover Rd. open across the CSX railroad tracks."

Howard County requested that a conference be set up with the State Highway Administration.

The Maryland Departments of Health & Mental Hygiene, Public Safety and Correctional Services, Housing and Community Development, General Services, and Budget & Management; the Maryland State Department of Education, the Baltimore Metropolitan Council; and the Maryland Department of Planning found this project to be consistent with their plans, programs, and objectives.

Any statement of consideration given to the comments should be submitted to the approving authority, with a copy to the State Clearinghouse. The State Application Identifier Number must be placed on any correspondence pertaining to this project. The State Clearinghouse must be kept informed if the approving authority cannot accommodate the recommendation.

Please remember, you must comply with all applicable state and local laws and regulations. If you need assistance or have questions, contact the State Clearinghouse staff person noted above at 410-767-4490 or through e-mail at brosenbush@mdp.state.md.us. **Also please complete the attached form and return it to the State Clearinghouse as soon as the status of the project is known.** ***Any substitutions of this form must include the State Application Identifier Number.*** **This will ensure that our files are complete.**

Thank you for your cooperation with the MIRC process.

Sincerely,

Linda C. Janey

Linda C. Janey, J.D., Assistant Secretary
for Clearinghouse and Communications

LCJ:BR

cc: Beth Cole – MHT
Elizabeth Barnard - DHMH
Joane Mueller - MDE
David Bezanson - DPSCS
Ray Dintaman - DNR
John Greiner - DHCD
07-1030_CRRCLS.doc
Chadfield Clapsaddle - DBM
Gerry Krebs - DGS
Barbara Bice - MSDE
Mina Hilsenrath - HOWD
John Dodds - ANARP
Mary Logan - BMC

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

Project Number: AA372A11 **MHT Log No.** 2008 00289
Project Name: MD 295 Hanover
County: Anne Arundel and Howard
Letter Date: January 24, 2008

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [Attachment 5]):

[X] Concur
[ ] Do Not Concur

Effect (as noted in the Effects Table [Attachment 5]):

[X] No Properties Affected
[ ] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):

[ ] Agree

Comments:

* SHA must ensure avoidance of the Wilderness Site (18AN596) during construction of this project.
* The final Phase I/II report needs careful proofreading and editing as it contains numerous mistakes.

By: Elizabeth J Cole 3/18/2008

MD State Historic Preservation Office/ Maryland Historical Trust — Date

Return by U.S. Mail or Facsimile to:
Dr. Julie M. Schablitsky, Cultural Resources Team Leader, Project Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5004

Marty - please notify SHA

MDP

Maryland Department of Planning

January 21, 2010

Mr. Donald A. Halligan, Director
Office of Planning & Capital Programming
Maryland Department of Transportation
7201 Corporate Center Drive
Hanover, MD 21076

Attention: Dr. Marty Baker

Re: The COMAR 11.04.13- Smart Growth Regulations Concurrence for the MD 295 Project from MD 100 to I-195, and Hanover Road from High Tech Drive to MD 170 in Anne Arundel and Howard Counties, Maryland

Dear Mr. Halligan,

This letter is in response to your January 11, 2010 letter requesting for concurrence from the Maryland Department of Planning (MDP) on the COMAR 11.04.13 - Smart Growth Regulations for the MD 295 Project from MD 100 to I-95, and Hanover Road from High Tech Drive to MD 170 in Anne Arundel and Howard Counties, Maryland.

We have reviewed the information provided by MDOT/SHA, we agree that the segment of the project/MD 295 from Hanover Road to I-195 served as a boundary of a PFA should be deemed to be inside the PFAs; the segment outside the Priority Funding Area (PFA) crossing the floodplain of Deep Run is less than 5% of the total project lane miles; and the total length of the segments outside PFAs is less than 20% of the total lane mileage of the project. These conditions meet the criteria defined by COMAR 11.04.13 - Smart Growth, i.e., the Linear Feature Regulations. Therefore, MDP concurs that the MD 295 Project locates inside the PFAs; it complies with COMAR 11.04.13 – Smart Growth Regulations and the 1997 Priority Funding Area law.

Should you have any concerns with regard to this concurrence, please do not hesitate to contact Ms. Bihui Xu at 410-767-4567 or by email at bxu@mdp.state.md.us.

Sincerely,

Pat Goucher, Director
Infrastructure Planning

301 West Preston Street • Suite 1101 • Baltimore, Maryland 21201-2305
Telephone: 410.767.4500 • Fax: 410.767.4480 • Toll Free: 1.877.767.6272 • TTY Users: Maryland Relay
Internet: www.MDP.state.md.us

CC: Dr. Marty Baker, Community Planner, MDOT-OPCP
Mr. Joe Kresslein, Assistant Division Chief, SHA-OPPE
Ms. Catherine Robbins, Environmental Manager, SHA-OPPE

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, Maryland 21401
http://www.fws.gov/chesapeakebay

June 9, 2010

Jessica Silwick
State Highway Administration
707 N. Calvert St.
Baltimore, MD 21202

RE: SHA Project MD 295 Project Planning Study

Dear Jessica Silwick:

This responds to your letter, received, May 10, 2010, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the vicinity of the above reference project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Except for occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project impact area. Therefore, no Biological Assessment or further section 7 Consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Lori Byrne of the Maryland Wildlife and Heritage Division at (410) 260-8573.

Effective August 8, 2007, under the authority of the Endangered Species Act of 1973, as amended, the U.S. Fish and Wildlife Service (Service) removed (delist) the bald eagle in the lower 48 States of the United States from the Federal List of Endangered and Threatened Wildlife. However, the bald eagle will still be protected by the Bald and Golden Eagle Protection Act, Lacey Act and the Migratory Bird Treaty Act. As a result, starting on August 8, 2007, if your project may cause "disturbance" to the bald eagle, please consult the "National Bald Eagle Management Guidelines" dated May 2007.

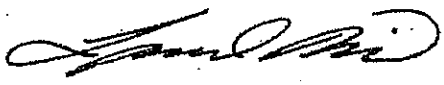
If any planned or ongoing activities cannot be conducted in compliance with the National Bald Eagle Management Guidelines (Eagle Management Guidelines), please contact the Chesapeake Bay Ecological Services Field Office at 410-573-4573 for technical assistance. The Eagle Management Guidelines can be found at: **http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.**

In the future, if your project can not avoid disturbance to the bald eagle by complying with the Eagle Management Guidelines, you will be able to apply for a permit that authorizes the take of bald and golden eagles under the Bald and Golden Eagle Protection Act, generally where the take to be authorized is associated with otherwise lawful activities. This proposed permit process will not be available until the Service issues a final rule for the issuance of these take permits under the Bald and Golden Eagle Protection Act.

An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the Basin's remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands is proposed, the U.S. Army Corps of Engineers, Baltimore District, should be contacted for permit requirements. They can be reached at (410) 962-3670.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interests in these resources. If you have any questions or need further assistance, please contact Devin Ray at (410) 573-4531.

Sincerely,



Leopoldo Miranda
Field Supervisor

Appendix D:
Farmland Conversion Impact Form

MD 295 Project Planning Study
Finding of No Significant Impact

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
28577 Mary's Court, Suite 3
Easton, Maryland 21601-7499

Phone: 410 822-1577 ext. 3

TO: Ms. Jessica Silwick
Environmental Manager, EPLD
State Highway Administration
707 N. Calvert St.
Baltimore, MD 21202

DATE: August 19, 2010

SUBJECT: Farmland Protection Policy Act
Environmental Assessment for
MD 295 Improvements Study
Cecil County, MD

Dear: Ms. Silwick:

The Natural Resources Conservation Service responsibility pertaining to the Farmland Protection Policy Act (FPPA) is to provide technical assistance for the Act by evaluating and completing Parts II, IV, and V of the Farmland Conversion Impact Rating Form, AD-1006. The purpose of the Act is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses.

We are returning the Rating Form AD 1006 with our parts completed. If you require any additional information, please feel free to contact me.

Sincerely,

James Brewer

James E. Brewer, CPSS/SC
NRCS Resource Soil Scientist
Easton, Maryland
410 822-1577 ext. 121
james.brewer@md.usda.gov

cc: Oliver Miranda, Annapolis, MD
Tansel Hudson, Annapolis, MD

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 7/23/10	4. Sheet 1 of 1
1. Name of Project MD 295 Project Planning Study	5. Federal Agency Involved FHWA	
2. Type of Project Highway Imporvement	6. County and State Anne Arundel and Howard County	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 7/27/10	2. Person Completing Form James Brewer, RSS, NRCS
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated NA / Average Farm Size 78 ac.
5. Major Crop(s) corn, soybeans, small grain	6. Farmable Land in Government Jurisdiction Acres: 190,792 72 %	7. Amount of Farmland As Defined in FPPA Acres: 95,174 36 %
8. Name Of Land Evaluation System Used Modified LESA	9. Name of Local Site Assessment System NA	10. Date Land Evaluation Returned by NRCS 8/19/10

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	41.8			
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	41.8	0	0	0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	11			
B. Total Acres Statewide And Local Important Farmland	3.1			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.037			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	44 %			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	72			
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	**Maximum Points**			
1. Area in Nonurban Use	15			
2. Perimeter in Nonurban Use	10			
3. Percent Of Corridor Being Farmed	20			
4. Protection Provided By State And Local Government	20			
5. Size of Present Farm Unit Compared To Average	10			
6. Creation Of Nonfarmable Farmland	25			
7. Availablility Of Farm Support Services	5			
8. On-Farm Investments	20			
9. Effects Of Conversion On Farm Support Services	25			
10. Compatibility With Existing Agricultural Use	10			
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100				
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
			YES ☐ NO ☐

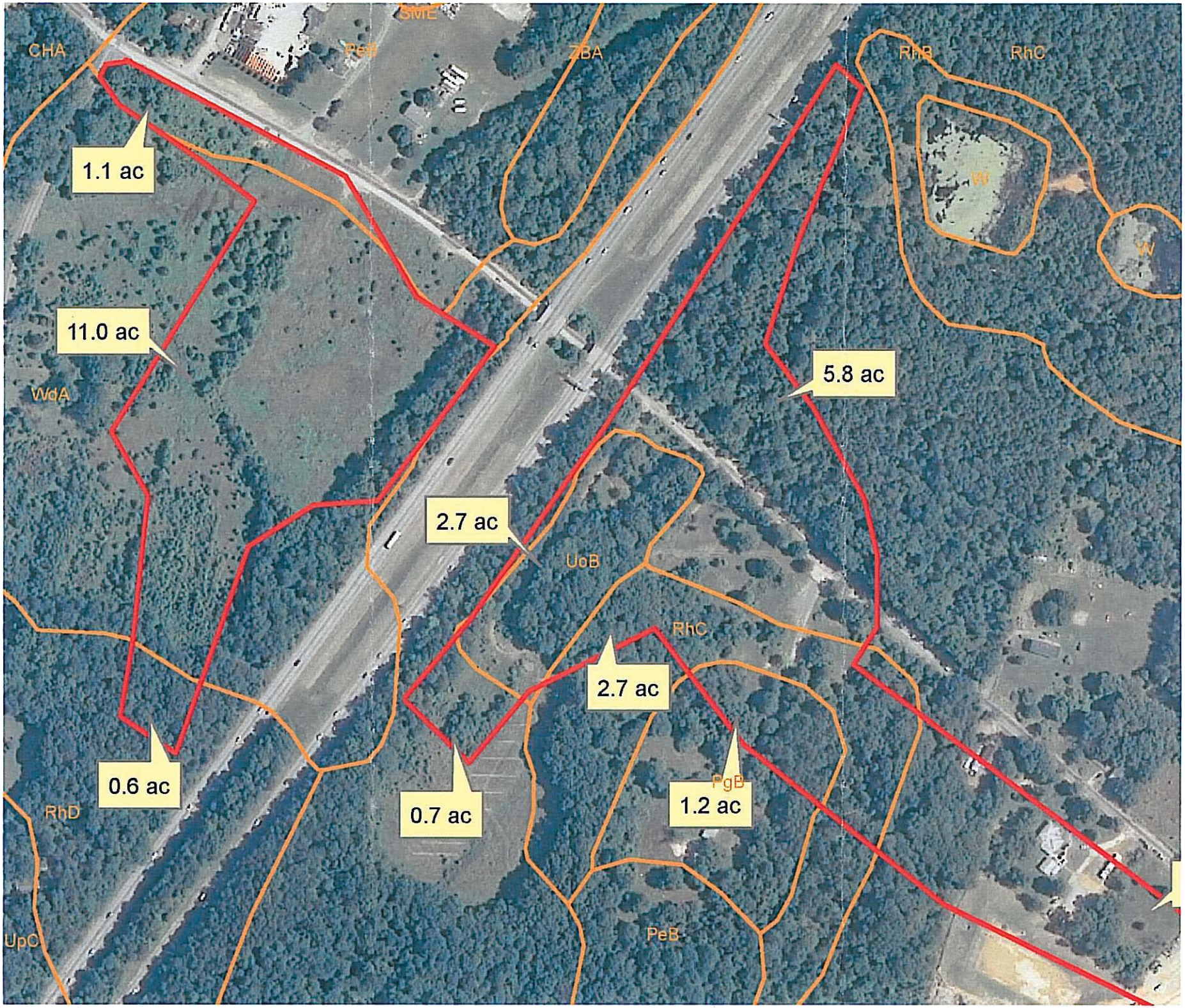
5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

MD 295 - Soils Impacts within LOD

Soil Type	Impact Area	Impact Area	Impact Area	Impact Area	Total
PeB	1.1		0.2		1.3
WdA	11				11
RhB	0.7	5.8	3.9	4.9	15.3
UoB	2.7				2.7
RhC	2.7				2.7
PgB	1.2				1.2
RhD	0.6				0.6
PfB	1.8				1.8
EVC	0.2	1.4			1.6
UpB	3.6				3.6
TOTAL	25.6	7.2	4.1	4.9	41.8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RhC
2.7 ac
0.6 ac
RhD
0.7 ac
PgB
1.2 ac
UpC
PeB


RhD
CHA
UpB
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DxC
RhC
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RhC
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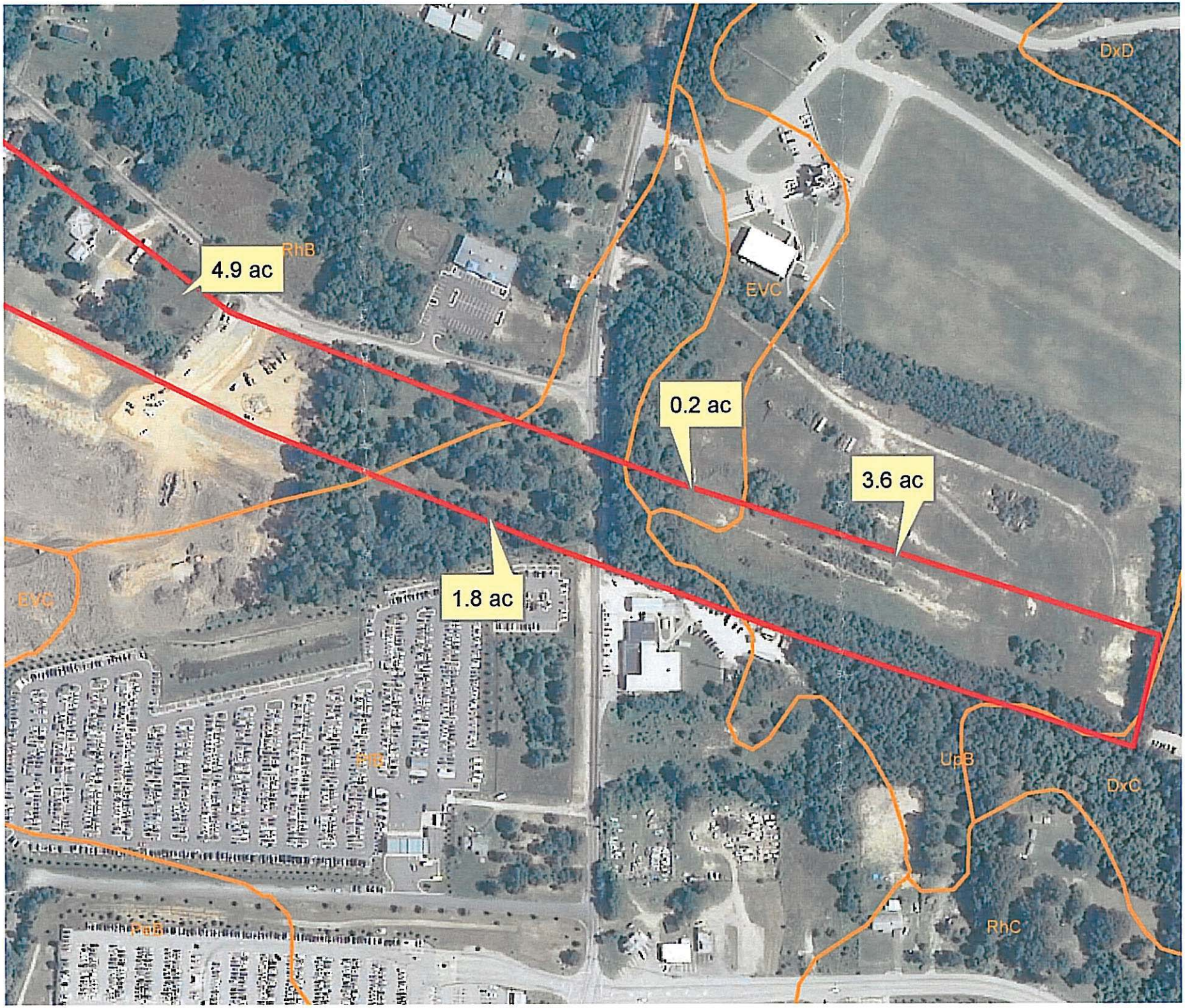
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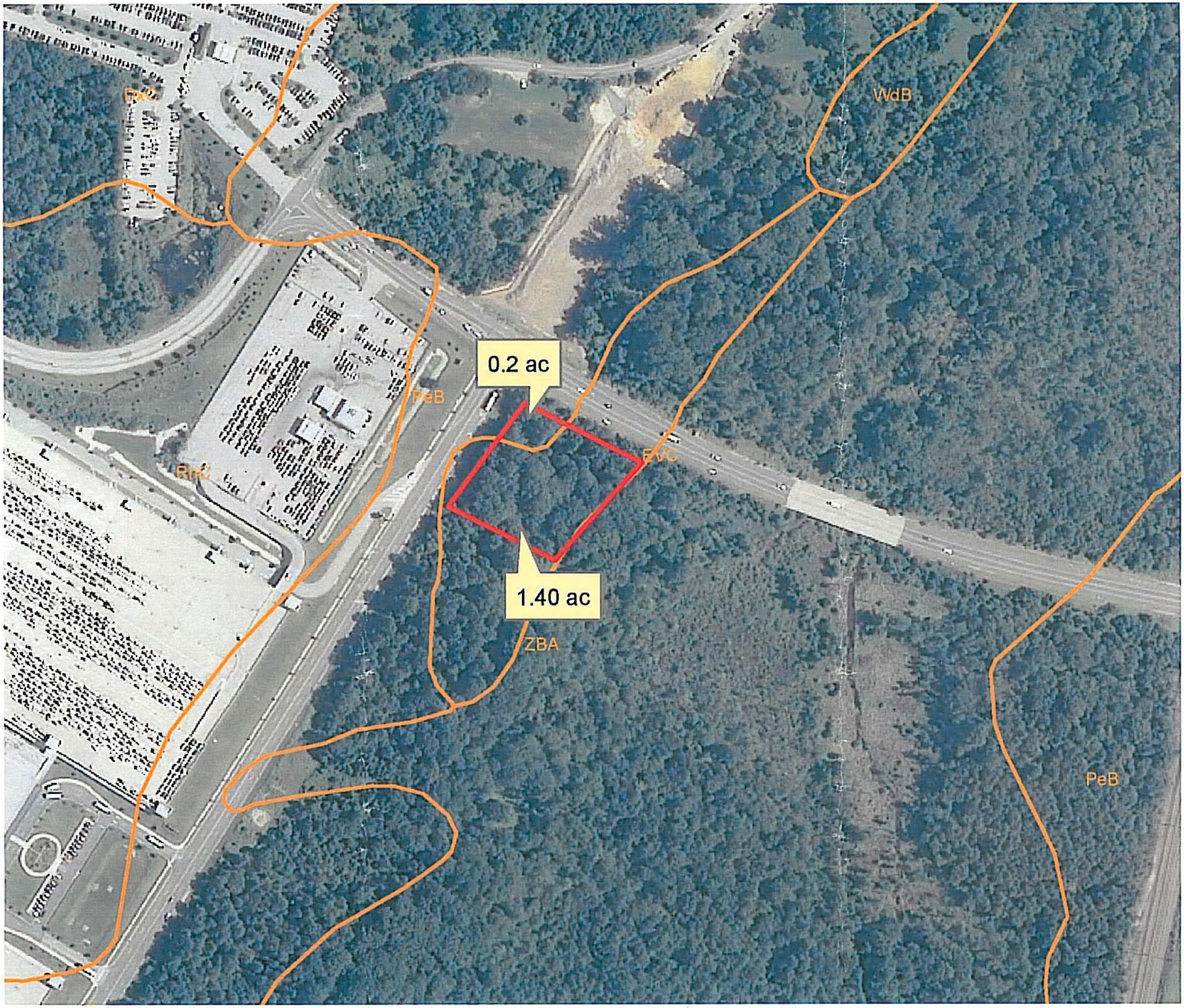
0.2 ac
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ZBA
PeB
WdB
PeB

Appendix E:
Summary of the PA/CM

MD 295 Project Planning Study
Finding of No Significant Impact

Appendix E

Summary Statement for the SHA Preferred Alternative and Conceptual Mitigation Package MD 295 Project Planning Study

Project Description

The Maryland State Highway Administration (SHA) is conducting a Project Planning study to evaluate widening MD 295 from I-195 north to MD 100, constructing a new grade-separated interchange at Hanover Road, and a range of improvements along Hanover Road from High Tech Drive east to MD 170 (Aviation Boulevard). The segment of MD 295 is located in Anne Arundel County near the Baltimore/Washington International Thurgood Marshall Airport (BWI). MD 295 is a major north-south route connecting Baltimore to Washington. Most of Hanover Road is located in Anne Arundel County, except for the western end which is located in Howard County. The planning study has considered various alternatives, including the No-Build and six build alternatives that share the proposed widening of MD 295, but differ in interchange design and Hanover Road alignment in the area of the proposed interchange.

Project Purpose Statement

The purpose of this project is to improve the existing capacity, traffic operations, and safety of MD 295, and to enhance Hanover Road as a secondary access to BWI and surrounding areas.

Purpose of Package

The purpose of this package is to request concurrence on the Preferred Alternative and Conceptual Mitigation for the MD 295 Project Planning Study.

Description of SHA's Preferred Alternative

Based on the information developed for the study and input from regulatory agencies and the public, Alternative 7 has been selected by SHA as the Preferred Alternative. Under this alternative, a loop ramp would be built in the southwestern quadrant of the interchange to allow movement from southbound MD 295. One-way directional ramps would be built on the northeast and southeast quadrants to allow movements to and from northbound MD 295. No ramps would be built in the northwestern quadrant of the interchange to avoid impacts to parkland, wetlands, and a residential area in the quadrant. This alternative has the lowest number of wetland impacts, stream impacts, potential residential displacements, and woodland impacts. However, this alternative has a higher construction cost than some of the other alternatives and requires the largest amount of right-of-way. **Appendix A** contains detailed mapping of the Preferred Alternative.

Environmental Impacts and Avoidance and Minimization Measures

The Preferred Alternative would impact 0.15 acre of a County-owned portion of the BWI Trail at the intersection of MD 170 and Stoney Run Road, and a 2.85-acre portion of the Patapsco Valley State Park along Deep Run. Impacts to the BWI Trail could not be completely avoided. The Anne Arundel County Recreation and Parks Department formally concurred with SHA's temporary use of the County-owned portion of the trail. SHA would reconstruct the trail prior to any highway construction to avoid interruptions to the activities or purposes of the facility. The proposed impact to Patapsco Valley State Park meets the Federal Highway Administration's Section 4(f) *de minimis* criteria. SHA coordination with park officials is ongoing to identify and evaluate additional minimization and mitigation measures.

Archeological surveys resulted in four sites potentially eligible for the National Register of Historic Places (NRHP) that could not be completely avoided by the proposed project. Consultation with the Maryland Historical Trust is ongoing to seek concurrence that none of the affected sites are eligible for listing on the NRHP.

The Preferred Alternative would impact 3.56 acres of wetlands and 11,543 linear feet of streams. Of the stream total, approximately 4,157 linear feet are perennial or intermittent channels, and 7,386 linear feet are ephemeral channels. The SHA evaluated two options to avoid impacts to wetlands and streams, and found that they would not fully address the project purpose and need. Two wetlands along Hanover Road were avoided by reducing the typical section of Hanover Road and shifting the alignment to the north. Impacts to other wetlands and streams were minimized by adjusting slopes to 2:1 and reducing the median width on Hanover Road. Adverse impacts to water quality during construction will be minimized through strict adherence to SHA sediment and erosion control procedures. To minimize impacts to water quality plans for stormwater management, sediment and erosion control will be developed in accordance with the Maryland Department of the Environment's (MDE) stormwater criteria to minimize adverse effects to water resources. The plans will include measures to address both quality and quantity controls that capture and treat runoff from a storm event.

The mitigation requirement for unavoidable impacts to wetlands is 5.8 acres, and the mitigation requirement for impacts to permanent and intermittent streams is 4,157 linear feet.

The Preferred Alternative would impact 33.2 acres of woodland. Woodland impacts were minimized by adjusting slopes to 2:1 and reducing the median width on Hanover Road.

Description of Conceptual Mitigation

SHA has coordinated with representatives of MDE, Maryland Department of Natural Resources (DNR), U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and U.S. Environmental Protection Agency, and to evaluate and select among 11 potential wetland and stream mitigation sites to replace functions and values. Two sites were selected. Wetland mitigation would

involve creation of a 6.5-acre wetland, partly forested and partly emergent, that would provide functions and values consisting of groundwater recharge and discharge, floodflow alteration, sediment/toxicant reduction, nutrient removal, sediment stabilization, wildlife habitat, and aesthetics. Stream mitigation would involve culvert replacement to remove an existing fish blockage and restore anadromous fish passage. The channel would also be stabilized immediately upstream and downstream of the culvert.

Wetland Mitigation Sites

The wetland creation site (Site 1) is located adjacent to Hanover and Race Roads immediately west of MD 295. The site is in the Deep Run subwatershed of the Lower Patapsco River in Anne Arundel County. The total parcel size is 20 acres, of which approximately 6.5 acres are available for wetland creation due to the placement of one of the proposed interchange ramps and a proposed stormwater management facility on the remainder of the parcel.

Streams

The stream mitigation site (Site 11) is on Stony Run at Furnace Avenue, approximately 1,200 feet upstream from its confluence with the Patapsco River. The scope of the restoration plan is to replace the Furnace Road culvert to allow for anadromous fish passage, and stabilize the stream channel immediately upstream and downstream of the culvert. The restoration would open up several miles of spawning habitat for blueback herring, alewife, hickory shad and American eel.

Woodlands

After all avoidance and prudent minimization efforts have been considered, acreage of cleared forest cover would need to be replaced on an acre-for-acre, one-to-one basis within a year of project completion in accordance with the Maryland Reforestation Law. Reforestation sites within the same county or watershed would be given the first priority. If local reforestation sites cannot be identified, SHA would be required to deposit $4,356 per cleared acre into the Reforestation Fund.

SHA'S PREFERRED ALTERNATIVE AND CONCEPTUAL MITIGATION

Concurrence Form

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Having reviewed the attached SHA Preferred Alternative and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration ___ Fish and Wildlife Service ___ MD Dept. of Natural Resources

___ Environmental Protection Agency ___ National Park Service ___ MD Dept. of the Environment

✓ ___ Corps of Engineers ___ National Marine Fisheries Service

✓ ___ **Concurs (without comments)** ___ **Concurs (w/minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: _____ Date: 11/12/05

SHA'S PREFERRED ALTERNATIVE AND CONCEPTUAL MITIGATION

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: _____ Date: 4-12-10

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✓ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment

___ **Concurs (without comments)** ✓ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:
Restrict instream work (Stoney Run, Piney Run, Deep Run) February 15 - June 15, during anadromous fish spawning

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: J3. Jick Date: 4/27/10

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_✓_ MD Dept. of the Environment

_✓_ **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: Elder A. Ghigiarelli Date: 4/27/10

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X National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment

X **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments: THE PROJECT IS OUTSIDE ANY NPS LANDS & SHOULD NOT HAVE ANY DIRECT IMPACTS TO THE NPS.

Additional Information Needed:

Signature: _____ Date: 19 MAY 2010

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, Maryland 21401
http://www.fws.gov/chesapeakebay

June 10, 2010

Joseph R. Kresslein
Office of Planning and Preliminary Engineering
State Highway Administration
707 North Calvert St.
Baltimore, Maryland 21202

RE: SHA Preferred Alternative/Conceptual Mitigation Concurrence Document-MD 295 Planning Study (Project No. AA372B11), October 2009

Dear Mr. Kresslein:

The U.S. Fish and Wildlife Service (Service) has reviewed the Preferred Alternate/Conceptual Mitigation Concurrence Document (PACM) for MD-295. The Maryland State Highway Administration (SHA) selected Alternative 7 as the Preferred Alternative because it minimizes impacts to wetlands, streams, parklands, and forests. The Service concurs with the selection of Alternative 7 and appreciates SHA's decision to select the alternative that minimizes natural resource impacts.

The Service also evaluated the mitigation sites for wetland creation and stream restoration. We concur with the selection of Site 1 (MD 295/Handover Road) for 6.5 acres of wetland creation.

Stony Run Fish Passage Proposal

The Service can only tentatively agree with the selection of Stony Run for providing fish passage at Furnace Road. We believe there are more beneficial projects in the Patapsco River watershed. The Service recommends that SHA work with the Maryland Department of Natural Resources and the Service to find a more worthwhile project. The Stony Run watershed is becoming urbanized and will exceed 25 percent impervious surface before development in the watershed is completed. This amount of impervious surface will compromise the ability of the stream to provide biologically productive anadromous fish nursery habitat or habitat for resident fish. The Center for Watershed Protection (CWP; CWP 2000) has identified 10 percent impervious surface as the lower threshold for stream degradation. In fact, declines in trout spawning success and density of anadromous fish eggs and larvae have been noted beginning at 10 percent impervious surface (CWP 2000). The Service recommends selection of another tributary of the Patapsco River that is better protected from high density development for a fish passage project.

The SHA should consider the top five projects for the Patapsco River identified using a ranking system developed by a multi-agency team led by the Maryland Department of Natural Resources (MDNR) as potential substitutes for Stony Run (MDNR 2009). The MDNR prioritization process gauges where to achieve the greatest ecological gain when choosing fish passage projects. The top five project sites are Deep Run, Herbert Run, Jones Falls, Piney Run, and the North Branch Patapsco River (Liberty Dam). These sites should be field verified by the Service and the MDNR Fish Passage Program and the exact locations given to the regulatory group on ADC maps for future field verification.

The Service recommends that this project be held in abeyance until SHA, the Service, and the MDNR have conducted an assessment of other potential fish passage projects in the Patapsco River watershed as mitigation for stream impacts from MD 295 construction.

Service Concerns with the Stony Run Project

The Service is also concerned with the method that SHA proposes for passing fish at Stony Run. SHA is planning to remove the three existing pipes under Furnace Road and replacing these pipes with a culvert. The inverts of these pipes are approximately 2 to 3 feet above the existing downstream creek bottom. When SHA installs new culverts they habitually place the invert of the culvert 1 foot below the streambed in accordance with Maryland Department of the Environment (MDE) regulations. MDE requires that the box culverts be buried to provide natural substrate for fish passage. However, the streambed immediately upstream of the pipes is 2 to 3 feet higher than the streambed below the pipes. If SHA installs the new culvert according to MDE regulations, the existing streambed upstream of the pipes will down cut 3 to 4 feet until the bottom of the cement box is reached. This down cutting will proceed upstream for 1,500 to 2,500 feet until it reaches a channelized section of the stream that has been lined with rock. This rip-rap will stop the down cutting of the streambed and will also create a new fish blockage. If the pipes are replaced with a box culvert, the Service requests that the upstream invert of the culvert be placed at the same elevation as the existing pipe inverts.

To provide fish passage through the new box culvert, the Service recommends that SHA raise the downstream water elevation of the stream to a level that provides 6 inches of water in the culvert during an average flow during the months of April and May. This can be accomplished with a series of cross veins placed below the new box culvert.

Lake Marion

The Lake Marion is a project that would have little environmental benefit. The Service is opposed to further consideration of this project for mitigation.

If you have any questions concerning Service responses to the PACM, please call Bill Schultz of my staff at (410) 573-4586.

Sincerely,

Leopoldo Miranda
Supervisor

cc: Jack Dinne, Corps of Engineers, Baltimore, MD
Barbara Rudnick, EPA, Philadelphia, PA
Steve Hurt, MDE, Baltimore, MD
Greg Golden, DNR, Annapolis, MD
Denise King, FHWA, Baltimore, MD

References

Center for Watershed Protection. 2000. The Practice of Watershed Protection. T. Schueler and H. Holland, eds. Center for Watershed Protection, Ellicot City Maryland.

Maryland Department of natural Resources. 2009. Procedure to Assist in the Prioritization of Dam Removal Projects in Maryland. Unpublished.

SHA'S PREFERRED ALTERNATIVE AND CONCEPTUAL MITIGATION

Concurrence Form

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✓ **Concurs (without comments)** ___ **Concurs (w/minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: _____ Date: 6.18.10

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___ MD Historical Trust ___ MD Department of Planning ✓ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ✓ **Has No Comments**

Comments:

SHA's Preferred Alternative is supported by BRTB Resolution # 09-03

Additional Information Needed:

Signature: Regina L. Aris Date: 11/17/09

200903989

SHA'S PREFERRED ALTERNATIVE AND CONCEPTUAL MITIGATION

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___ Concurs (without comments) ___ Concurs (w/minor comments) ___Does Not Concur

Comments / Reasons for Non-Concurrence:

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X MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ Provides Comments (below or attached) **X Has No Comments**

Comments:

Additional Information Needed:

Signature: Tim Tamburrino Date: 11/17/09

11/17/09

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___ MD Historical Trust ✓ MD Department of Planning ___ Metropolitan Planning Organization

___ Provides Comments (below or attached) ✓ Has No Comments

Comments:

MDP supports the proposed pedestrian/bicycle facilities developed for the project.

Additional Information Needed:

Signature: _____ Date: 11/23/09

Attn: Jessica Silwick
410-209-5004

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√ MD Dept. of Natural Resources
___ MD Dept. of the Environment

___ **Concurs (without comments)** √ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence: The concurrence is given with understanding that the project team coordinated directly with MD Park Service on the Park lands issues, and our DNR wildlife & Heritage Service on RTE species, with further coordination planned, as needed.

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: Gregory J. Golden Date: 5/14/10

This concurrence is not meant to summarize or represent the issues and determinations in that direct coordination, other than to confirm DNR's PACM concurrence within the streamlined environmental process.